AGENDA

DRAINAGE DISTRICT 14 LANDOWNER MEETING Wednesday, November 18, 2020 12:00 PM

Large Conference Room

Due to Covid-19 health concerns, this meeting is open to the public via conference call and in-person attendance. The meeting date and time will remain the same. You may call at that time to access the meeting by following the instructions below:

To access the meeting call: 1-(312)-626-6799, when prompted enter meeting

ID code: 820 7567 2007
You can also access the meeting online at: https://us02web.zoom.us/j/82075672007

- 1. Open Meeting
- 2. Approve Agenda
- 3. Introductions/Attendance
- 4. DD 14 WO 290 Explanation Of Investigation Summary

This informational meeting is to discuss the issue of 3 reported blowouts/sinkholes with cracked/collapsed VCP main tile and the history of 7 blowouts/sinkholes reported on this tile in the last 3 years, one of which included monitoring of a failing road crossing instead of replacement. The Investigation Report of 8/31/2020, reports CCTV results of 26 locations of partial or imminent collapse within 1900' of tile, temporary repairs were made in four locations. Landowner input and feedback are requested to discuss options and/or see if there is interest in a larger district project/repair.

Documents:

DD 14 WO 290 - 6844.4 - INVESTIGATION REPORT - 2020-08-31.PDF

5. DD 14 WO 291 - Discuss W Possible Action - Investigation Summary Work Order 291's initial report was of slow drainage and standing water, further investigation did not reveal a clear-cut issue, potholing was done on Lateral 2 and Main Tile to find problem locations. Two private tile connections were found to have been inserted too far into the main tile directly across from one another, creating an obstruction that caught trash and debris causing the back ups. Repair was made and Investigation Summary is included here for review and discussion at the Landowners Meeting.

Documents:

DD 14 WO 291 INVESTIGATION AND REPAIR SUMMARY 10_07_20.PDF DD 14 WO 291 INVESTIGATION SUMMARY 05_11_20.PDF

- 6. Comments/Discussion
- 7. Possible Action
- 8. Other Business
- 9. Adjourn Meeting



Drainage Work Order Request For Repair Hardin County

Date:	3/31/2020	
Work Order #:	WO0000290	- ,,
Drainage District:	DDs\DD 14 (51027)	
Sec-Twp-Rge:	34-88-22 Qtr Sec: <u>SW NE & NV</u>	V SE
Location/GIS:	88-22-34-200-004	 _
Requested By:	David Sweeney	
Contact Phone:	(641) 373-4340	
Contact Email:		
Landowner (if different):	Cynthia loger	
Description:	DD 14- 2 blowouts in waterway, 5' blowout N obase, 3' blowout S of drive lane is 3' deep w broenter through the farmstead & drive down the	oken VCP tile in base. Contractor should
Repair labor, material	s and equipment:	
Repaired By:		Date:
Please reference work	order # and send statement for services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245
or Office Use Only		
Approved:		Date:

	(43)		



2/21/2020

Approved:

Date 3/3	1/2020						Work Orde	r#
District #	#14		Lateral	М	ain Tile	Fund #		
Township			Sectio	on 34	Twp 88	Rge 22	Qtr Sec	SW NE
Repair Requeste	ed By	David Sweeney						MAA 2E
Address	21	547 Hwy S27, Alde	n, IA 50006 (al	so the re	pair location)	Phone	641-373-	-4340
Landowner	C	ynthia loerger						
Address	19	9672 Hwy D15, Iowa	a Falls, IA 5012	26		Phone	641-640-	-2191
Request Taken E	Зу							
Available for Rep	pair Now	? XYes			[Date Available		
Problem Descrip	ntion —							
	1	wo blowouts in water flowout north of drive		in diame	ater and			
	4	feet deep with broke	en VCP tile in t	the base	•			
		lowout south of drive						
	3	feet deep with broke		me base	•			
	C	contractor should ent	ter through the	farmste	ad and			
	ai	rive down the lane to	o the back of th	ne prope	rty.			
Repair labor, ma	iterials an	nd equipment						
Potential Wetlan	nds?	☐Yes-Repair existing ti	le only		No-Repair and i	maintain tile		
Repaired By:								
Date:								
Please send state	ement for	r services to:		rdin Count	ty Auditor's Offi	ce		
Phone (6	41) 939-8	3111			on Ave, Suite 1			
Fax (641)				ora, IA 50				

For Office Use Only

Date:



Drainage District:

#14

Investigation Summary:

- Per the earlier recommendations and authorization, CCTV inspected the 15-inch VCP Main Tile starting at
 existing 3 feet diameter blowout located in the grass waterway approximately 1900 feet east of County
 Highway S27 and approximately 2650 feet south of County Highway D41.
- Televised 884.9 feet upstream (to the north) from said existing tile blowout and found 17 locations of partial/imminent collapse. (see attached Tabulated Defects sheet)
- Televised 995 feet downstream (to the south) from said existing tile blowout and found 9 locations of partial/imminent collapse. (see attached Tabulated Defects sheet)
- Temporarily repaired 4 tile locations, 2 north and 2 south (1 was at tenant's request) from the start location of the CCTV with 15" Dual Wall HDPE tile with fabric wrapped joints and backfilled the areas with on-site soil.

Contractor Time and Materials (spent while CGA was on-site):

See attached Tabulated Contractor Time and Materials Tabulated Defects sheet.

<u>Additional Actions Recommended:</u>

It is obvious that the Main tile is in disrepair and needs to be repaired based on the CCTV results and the history of repairs in the area. If nothing is done, the tile's condition will only continue to deteriorate which will result in future blowouts and sinkholes that will impact the drainage capacity of the Main tile. Therefore, we would recommend doing at least 6 spot repairs which would consists of replacing approximately 570 feet of existing tile. It is our opinion that the total construction cost would be \$35,000-\$45,000. This cost is low enough that neither a hearing nor Engineer's Report would be required. Alternatively, the District Trustees could purse replacement of the Main tile for its entire length of CCTV, the cost of which would exceed \$50,000 and require a hearing and Engineer's Report.



Tabulated Contractor Time and Materials

Date @	Totals	5/14/2020
Workman (hrs)	18.75	18.75
Mini Excavator (hrs)	6.25	6.25
UTV with camera Equipment (hrs)	6.25	6.25
18" Dual Wall HDPE Tile (ft.)	19.9	19.9
CCTV inpection (ft.)	1878.3	1878.3





Tabulated Defects

	_		
		GPS #177	GPS #178
g*****	Total	UPSTREAM	DOWNSTREAM
Total Length Televised (ft)	1879.9	884.9	995
Date:		5/14/2020	5/14/2020
Top crack (ft)	805.3	338.5	466.8
Side crack (ft)	161.4	69.2	92.2
Bottom crack (ft)	805.3	338.5	466.8
	7		
Partial or imminent collapse (#)	26	17	9
Full collapse (#)	0	0	0
Onlyin (6)	21		
Debris (ft)	3	3	0
Offset Joint (#)	6	5	
Onser John (#)	0	3	1
Soil/voids visible in offset joint (#)	5	4	1
on the state of th			-
Single Wall HDPE (non-deformed) (ft)	6.2	1.5	4.7

Dual Wall HDPE (ft)	0	0	0
CMP (rusty) (ft)	49.8	34.3	15.5
Holes (non-fixed) (#)	0	0	0
Holes (fixed) (#)	0	0	0
Alligator Cracks (ft)	261.4	0	261.4
Redial Cooks (III Cooks	1		
Radial Cracks (# of tile)	2	0	2



CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	05/14/	2020
PROJECT NUMBER: HARDIN DD WO # 6844.4 / DD14	DAYS OF WEEK:	SMTWC	FS
COUNTY, ROUTE, ROAD: WEST OF COHWY 527	SHEET NO.	OF _	6
LOCATION: DOHLY MAIN LOCATED SWIE NW.	SE MID 50'S TO	WIND MIST AND	
- TOUCHIER E VICTORIALIUM REPARK 3 TILE BLAWS	21197	2 RAIN W LATE A	STERNOON "
DESCRIPTION OF WORK AND MATERIAL USED FOR NAME, ITEM NO. AND LOCATION	EACH OPERATION, INCLU	JOB# 6844 DD 19 JDING CONTRACTO	OR/SUB
8:30 A.M. LEE CALLED THAT PAU			
TILE UPSTREAM AND DOW			
SOUTH OF GRASS LAWS EN	ST TO ACREMCE @	ZIS47 COHWYSZ	710
GRASS WATERWAY & 1			
EAST TO ACREMEE @ 215			
AND MAKE TEMPORARY			
ON HOW MUCH OF TI			OKED
FOR FILE AND UPLOADED		1000	
9145 A.M. LEETEXT THAT P			W6
SHOP AND OBSERVER LE			
10) 25 A.M. OBSERVER ARRIVED O	WIND TO AND STE	FRED SETT	ING
FIELD DRIVE IN SE QUAD	PIRON REPOR	PLUSH IN SI	W COKNOK
10:30 A.m. BBSERVER COULD SE	E THAT CREW L	ARN ENLIEM	Sug-Cla
UNLOADED AND WERE D			
10:50 A.M. DESERVER CHECKED IN	VTO GPS#ZI SU	CRUEV MARK	FLUSHIN
ACL CO Hury 527 1/2 MILE SOUTH	OF CO. HWY DYI WIT	H BOTH HORI	ZONTAL.
AND VERTICAL POSITION CH	IECKING GOOD.		2 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
10:55, A.M. OBSERVER ARRIVED A	T JOB SITE _ PA	ul, 0006, & u	ILLIAM
WAS ONSITE FOR CREW WI	THE BOBCAT E85	MINI EXCAVO	MOR
AND UTU WITH TELEVISING	EQUIPMENT IN	BACK . CREY	U
HAD TILE EXPOSED IN HOLE	#15.3,00 BLOWOU	TIN GRASS W	VATERWAY
(120' ± SOUTH GRASS LANG EASTY	DACREMEE) AND WI	AS GETTING SE	TUP_
TOTELE VISE UPSTREAM	FROM 15" CLAYT	ILE GPS#177	TILE
HAD ABOUT 5" FLOW			
11:05 A.M. CREW STARTED TELEVA	SING UPSTRAM	FROM 6PS#	177
Certify that the work described in this report was incorporate	ed into this contract unless oth	erwise noted.	OLE #15
Observer's Signature: Dean Penning	n	05/14/2020	
Reviewed by:	Engineer	(1-1 (0) 6()	
	_ ·	Date Reviewed	

CONSTRUCTION ENGINEERIN OBSERVATION REPORT	G DATE:	05/14/2020
PROJECT NUMBER HARDIN DO NO	DAYS OF WEEK	SMT WDFS
COUNTY, ROUTE, ROAD: wast of con my out & 2	Wy 327 BETWEEN SHEET NO.	OF6
LOCATION: DOLY MADON THE LOCATED SWITE 34-88-22 MARDIAL COMATTE INVESTIGATE & TEMPORARILY REPARE	WIND SEMA SEN	'S TO UPPER 60'S CLOUDY WITH LIGHT MIST & FOG IN MORNING & RAIN TE AFFERNOON
DESCRIPTION OF WORK AND MATERIAL NAME, ITEM NO. AND LOCATION		
BLOWOUT HIS IN GRASS WA	TERWAY 120.3' \$ 500	ITH OF & GRASS LANE EAST
3.0 6 BLOWOUT	TO ACREME	8 (@ 21547 CO HWY 527
ONE SECTION OF THE COURPSED	6PS#177 1.35 TOP TOF	L SOME 15" TALL CLAY
N		
	GPS#178 1.25'TOPTOFL 2.7'\$ DEEP	SOME 14" TALL CLAY
11:25 A.M. CREW START		T 0 #26
11:25 A.M. PICTURE# 3538	11:28 A.M. PICTURE	# 2539 1137 A M
PUTURE # 3540 SO	EPICTURE FOR DETAIL	H3331 11.3C AIM
11:42 AM PICTURE # 3541, 1	143 A.M. PUTUREH 35	44 11:48 A.M. 0
# 3543 & PILTURES		THE PICTURE
BLOWOUT # ZS IN GRASS		E SOUTH OF 4 GRASS LUNE GAST
3.00 TILE BLOWOUT		1008066 @ 21547 CO HWY 527
OF TILE 4"MAN	GENT 119 1.22' TO	PTOFL SQUATED IN TAIL CLAY
Callagent	2.91	DEEF
262	S.O' LOWE EROL	DED SOIL CAVITY
	6PE# 110 125'	PTD FL SQUATTED 17.25"THE CLAY
Sis	WAS EROOF SOR 2.8 + CE	SEP
12:07 P.M. PILTURE# 354	5 & PICTURE # 3540	SEE PUTURE FOR
DETAILS		
12:10 P.M. CREW RAN INT	O A SELTION OF TIL	E THAT HAD COMPLETELY
COLLAPSED.		
12:15 P.M. CREW HEADED		
& EXPOSE TILE SO	CREW COULD LOCA	ITE TILE FURTHER NORTH,
I Certify that the work described in this report w	as incorporated into this contract un	nless otherwise noted.
Observer's Signature:	Data Danson I	05/14/2020
Reviewed by:	Engineer	
		Date Reviewed

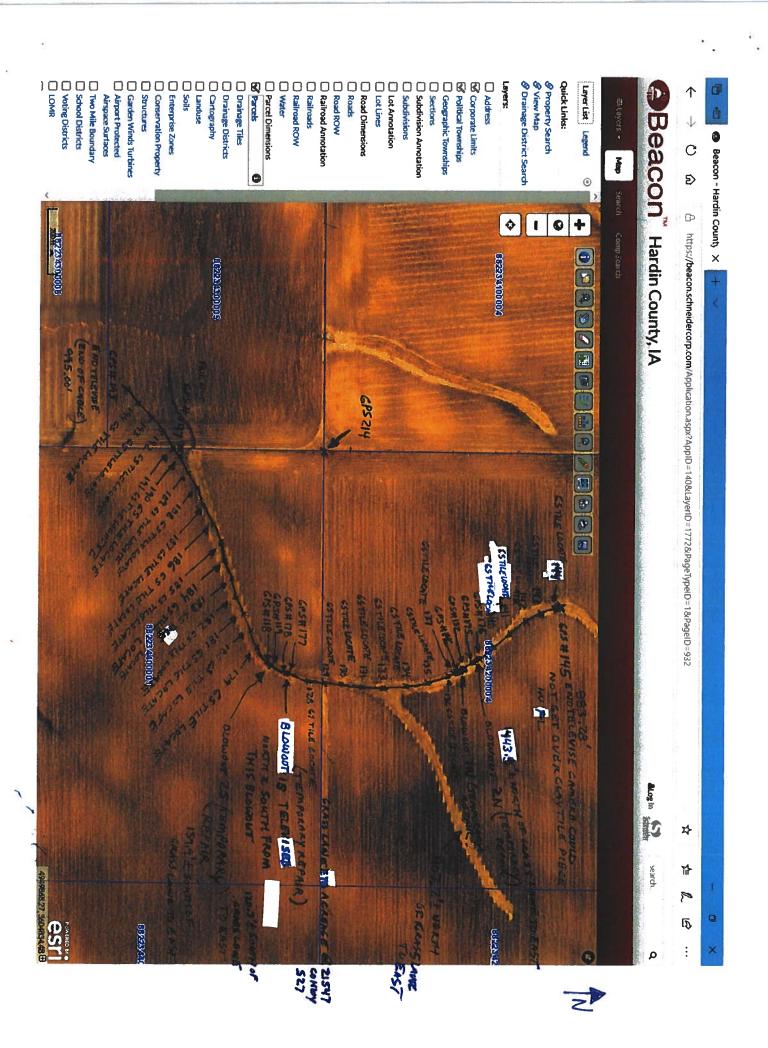
CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	05/14/2020
PROJECT NUMBER: HARDIN DO WOHT	DAYS OF WEEK:	SMTWDFS
COUNTY, ROUTE, ROAD: WEST OF COHWY \$27	BETWEEN SHEET NO.	
LOCATION: DDIY MADN TILE LOCATED SUNDE N 34-88-22 HARDION COMATY INVESTIGATE & TEMPORARILY REPART 3 THE	WFB WIND MIST BLOWDERS MU LATE A	UPPER 60'S CLOUDY WITH LIGHT RFO6 IN MORNING & RAIN FFERNOON
DESCRIPTION OF WORK AND MATERIAL USED NAME, ITEM NO. AND LOCATION	FOR EACH OPERATION, INC	LUDING CONTRACTOR/SUB
12:25 P.M. CREW HAD TILE BE	LOWOUT # ZN EXPOSE	AND SECTION OF
CLAYTILE REMOVED.	_	APSED TILEWAS
NOT TILE BLOWDUT #		
12:29 P.M. PICTURE #3547 SEE		
12:30 P.M. CREW LOCATED TH	LE FROM GPS#177	NORTH TILE INSIDE
TILE BLOWDUT #18 UPSTREE		TION OFFILE COURPSED
(GPS 128-131, 133 TO 137)		
12:43 P.M. PICTURE # 3548 SEE		
12358 POMO CREWWAS DONE LO		
@ 537.1' WHERE SECTION		WORTH OF GRASSWATER
BLOWOUT # ZN IN GRASS	WATER WAY 473.08	WAY TO ACREMES
- 14-1-		- tl 44
5.0' & TILE BLOWOUT		TOP TO FL SQUATIED 12"TALL
2 SELTIONS OF TILE COLLAPSED	(2.8'08	
2 SELTIONS OF TILE	(3.8,08	EP) CLAY
2 SELTIONS OF TILE COLLAPSED	(3.8°08	EP) CLAY INZI'TOPTOFL SQUATTED 13"TAU 12" WASE
Z SELTIONS OF TILE COLLAPSED N 7"	(3.8°08	EP) CLAY
Z SELTIONS OF TILE COLLAPSED N 7" FLOW	(3.8°08	EP) LLAY INZI'TOPTOFL SQUATTED 13"TAU 18" WIDE CLAY
COLLARSED N 7" FLOW 1:09 P.M. PIGTURE # 3549 & 1"101	(3.8'08 6PSH 139 (3 0,M, PICTURE# 3550 SE	EF) LIAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE CLAY SE PICTURE FOR DETAILS
COLLAPSED N 7" FLOW 1:09 P.M. PICTURE# 3549 & 1"101 1:12 P.M. PICTURE# 3551 & PICTURE	2.8'08 6PSH 139 (3 P.M. PICTUREH 3850 SE # 3552 SEE PICTURE	EF) LIAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE CLAY SE PICTURE FOR DETAILS
COLLAPSED I:09 P.M. PICTURE# 3549 & 1":101 1:12 P.M. PICTURE# 3551 & PICTURE 1:16 P.M. PICTURE# 3553 SEE PIC	GPSH 139 GPSH 1	EP) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE 6' ± DEEP) CLAY EE PICTURE FOR DETAILS FOR DETHILS,
COLLAPSED N 7" FLOW 1:09 P.M. PICTURE# 3549 & 1"101 1:12 P.M. PICTURE# 3551 & PICTURE	GPSH 139 GPSH 1	EF) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE .6'\$ DEEP) CLAY SE PILTURE FOR DETAILS FOR DETHILS,
COLLAPSED COLLAPSED N 7" FLOW 1:09 P.M. PIGTURE# 3549 & 1:101 1:12 P.M. PIGTURE# 3551 & PIGTURE 1:16 P.M. PIGTURE# 3553 SEE PIGTURE 1:125: P.M. CREW LET WATER FLO	GPSH 139 GPSH 1	EF) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE 6'\$ DEEP) CLAY EE PILTURE FOR DETAILS FOR DETHILS, ONTINUED TO TELEVISE CAMERA FOUNDA
COLLAPSED COLLAPSED N 7" FLOW 1:09 P.M. PIGTURE# 3549 & 1":101 1:12 P.M. PIGTURE# 3551 & PIGTURE 1:16 P.M. PIGTURE# 3553 SEE PIG 1:25. P.M. CREW LET WATER FLO UPSTREAM PAST 537.1 THE	GPSH 139 GPSH 1	EF) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE 6' & DEEP) CLAY EE PICTURE FOR DETAILS FOR DETAILS ONTINUED TO TELEVISE CAMERA FOUNDA AND COULD NOT
1:09 P.M. PICTURE# 3549 & 1":101 1:12 P.M. PICTURE# 3551 & PICTURE 1:16 P.M. PICTURE# 3553 SEE PICTURE 1:125: P.M. CREW LET WATER FLO UPSTREAM PAST 537.1 THE BROKEW CLAY TILE CH.	GISTOE 4.2) 6PSH 139 (3 C.M. PICTURE# 3550 SE # 3552 SEE PICTURE THEE FOR OFTAILS, WE FOR A WHILE & CO E COLLAPSE UNTIL HANK IN FLOW LINE HOW 883.28' GPS	EF) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE 6' & DEEP) CLAY EE PICTURE FOR DETAILS FOR DETAILS ONTINUED TO TELEVISE CAMERA FOUNDA AND COULD NOT
COLLAPSED I:09 P.M. PIGTURE # 3549 & 1:101 1:12 P.M. PIGTURE # 3551 & PIGTURE 1:16 P.M. PIGTURE # 3553 SEE PIGTURE 1:125: P.M. CREW LET WATER FLO UPSTREAM PAST 532.1 THE BROKEW CLAY TILE CH. GET PASSED THE CHUW	GPSH 139 GPSH 1	EF) LLAY 1-21'TOPTOFL SQUATTED 13"TAU 18" WIDE 6' & DEEP) CLAY EE PICTURE FOR DETAILS FOR DETAILS ONTINUED TO TELEVISE CAMERA FOUNDA AND COULD NOT # 145.
COLLAPSED I:09 P.M. PICTURE# 3549 & 1":101 1:12 P.M. PICTURE# 3551 & PICTURE 1:16 P.M. PICTURE# 3553 SEE PIC 1:25 P.M. CREW LET WATER FLO UPSTREAM PAST 532.1 THE BROKEW CLAY TILE CH. GET PASSED THE CHUW 1:42 P.M. CREW WAS LOCATION	ECOLLAPSE UNTILL WE TILE AND PURE 1. 2. 8'DE 1. 3. 2. 8'DE 1. 3. 3. 3. 2. 8'DE 1. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	EF) LING CAMERA BACK
COLLAPSED I:09 P.M. PICTURE# 3549 & 1"101 1:12 P.M. PICTURE# 3551 & PICTURE 1:16 P.M. PICTURE# 3553 SEE PICTURE 1:125. P.M. CREW LET WATER FLO UPSTREAM PAST 5321 THE BROKEW CLAY TILE CH GET PASSED THE CHUW 1:42 P.M. CREW WAS DONE LOCATION 1:57 P.M. CREW WAS DONE LOCATION Certify that the work described in this report was inco	ECOLLAPSE UNTILL WE TILE AND PURE 1. 2. 8'DE 1. 3. 2. 8'DE 1. 3. 3. 3. 2. 8'DE 1. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3. 3.	EF) LLING CAMERA BACK CLAY LLING CAMERA BACK CLAY CLAY
COLLAPSED I:09 P.M. PIGTURE# 3549 & 1.101 1:12 P.M. PIGTURE# 3551 & PIGTURE 1:16 P.M. PIGTURE# 3551 & PIGTURE 1:16 P.M. PIGTURE# 3553 SEE PIG 1:25. P.M. CREW LET WATER FLO UPSTREAM PAST 532.1 THE BROKEW GCAY TILE CH. GET PASSED THE CHUW. 1:42 P.M. CREW WAS DONE LOCATION 1:57 P.M. CREW WAS DONE LOCATIO	G.8'06 4 6PSH 139 6PSH	EF) LING CAMERA BACK
COLLAPSED 1:09 P.M. PICTURE# 3549 & 1"101 1:12 P.M. PICTURE# 3551 & PICTURE 1:16 P.M. PICTURE# 3553 SEE PIC 1125. P.M. CREW LET WATER FLO UPSTREAM PAST 5321 THE BROKEW CLAY TILE CH GET PASSED THE CHUW 1:42 P.M. CREW WAS DONE LOCATION 1:57 P.M. CREW WAS DONE LOCATION Observer's Signature: Dean Penning	G.8'06 4.2) 6PSH 139 (3 C.M. PICTURE# 3550 SE # 3552 SEE PICTURE TURE FOR OFTAILS, WE FOR A WHILE & C. E COLLAPSE UNTIL UNK IN FLOW LINE ROB 883.28 GPS NG TILE, ATIME TILE AND PUR rporated into this contract unless of	EF) LLING CAMERA BACK CLAY LLING CAMERA BACK CLAY CLAY

CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	05/14/2020
PROJECT NUMBER. HARRIN DO WOTT	DAYS OF WEEK:	SMTWDFS
COUNTY, ROUTE, ROAD: WEST OF COHWY 327 BETW	SHEET NO.	<u>4</u> of <u>6</u>
LOCATION: DOIY MARN TILE LOCATED SUNS & NW 58 34-88-22 MARDIAL COMPTY INVESTIGATE & TEMPORARILY REPART 3 THE BLOW	WIND MISTE	PPER 60'S CLOUDY WITH LIGHT RFOG IN MORNING & RAIN
DESCRIPTION OF WORK AND MATERIAL USED FOR NAME, ITEM NO. AND LOCATION		
BLOWOUT # IN INGRASS WHTERWI	407.22 NORTH	OF GRASS WATER WAY TO ACREAGE.
I SECTION OF TILE	CPS # 147 1.05 TOP	o Handad
COLLAPSED A	3.4'±082	P SQUATTED
4.0'LONE 212 'S.		
SOIL CAUTY ON WEST SIDE	X 685# 146	132 TOPTOFL 15"TALL CLAY
ZIOS PIM, PILTURE # 3557 SEE PICTU	RE FOR DETAILS	
2:14 P.M. PICTURE # 3558 & PICTURE		E FOR DETALS
CREW WILL REMOVE NEXT CL		
THE BLOWOUT # IN OUE TO		
2:33 P.M. PICTURE # 3560 SEE PIC		LS
BLOWOUT # IN IN GRASS WATE		UDRITH OF GRASS WATERWAY
TEMPORARY REPAIR TILL	es # 152 1.34 TOPTOF	15,25"THU
DISTRICT DECIDES ON REMIR.	HI FLOW 3.3' DEEP	
Z.O'X 4.5' ENGWEENING -		
N G.3 LF 15 " B BUAL WALL	6PS 146 1.32 TOP	TO PL 17" WIDE CLAY
NONPERF HOPE TILE	3.3't DE	
2.0'X4.5 ENCINSERMS FARRIC OUR	RJOINT	
Z:42 P.M. CREW STARTED TELEVISING DOL	UNSTREAM FROM GPS	#178 IN TILE BLOWOUT #18,
CREW WILL BE MOVE A CLAY TILE	SECTION TO WOR	TH AND SOUTH IN
TILE BLOWOUT # 2 N DUE TO C		
3:11 P.M. PILTURE# 3562, 3:14 P.M. PILTE	CRE # 3563, 3:19 P.M.	PILTURE # 3564 SEE
PICTURE FOR DETAILS.		
BLOWOUT # ZN IN GRASS WATERWAY 443	5' NORTH OF GRASS WHIERU	MY TO ACREMGE
ENDED UP REMOVING 4 SECTIONS OF TILE	2.6' X 4.5' ENGIN	ERRINE FABRIC OVER TOINT
FOR TEMPORARY REPAIR TILL	315 LF OF 15 2.0' x415' CM	MENERRIAL EMBRIC OVER JOINT
I Certify that the work described in this report was incorporate	X LOSH17.5 1.39 TANK	
		herwise noted.
Observer's Signature:	Date Prepared:	05/14/2020
Reviewed by:	Engineer	<i>(</i>

Date Reviewed

		9
CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	05/14/2020
PROJECT NUMBER: HARDIN OD WO# 6844.4 / DD 14	DAYS OF WEEK:	SMTWOFS
COUNTY ROUTE ROAD. WEST OF COHWY 527 BETWEE	SHEET NO.	5OF6
LOCATION: DOLL MAINTILE LOCATED SWINE & NW SE 1005564TE & TEMPORAR ILL REFORE STILE BLOWN	MIND MIST 8	FOG 'IN MORNING & RAIN ERADON
DESCRIPTION OF WORK AND MATERIAL USED FOR NAME, ITEM NO. AND LOCATION	EACH OPERATION, INCL	DB# 6844 0014.5 ARVBY UDING CONTRACTOR/SUB
3:33 P.M. PICTURE # 3565 SEEE PICT	URB FOR DETAILS	
3:35 P.M. CREW WAS DONE BACK	FILLING TILE BE	OWDUT TIN & #ZN
AND FINISHED TELEVISING	995' DOWNSTRE	EAM TO ENO OF
CAMERA CABLE, CREW		
3:50P.M. CREW WAS DONE LOC	ATING TILE	AND STARTED
TO RETRIEVE CAMERA.		
4:14 P.M. PICTURE # 3566 & PICTU	RE #3567 SEE	CICTURE FOR DETAILS
BLOWDUT # 25 IN COURS HATERWA	y 159.9'\$ south of	CAASS LANE ENSTTO ACREMGE
ONE SECTION TILE 3" FLOW CP	5#119 1.22 TOPTOFL	(29' 20KEP)
REPLACED N K	2.5' x 4.5' ENGINEERIN	NG FABRIC SUERSOINT
2.	61F 15" \$ OVAL WAL	L HOPE NONPERF TILE.
	5' ENGINEERING FAR	
8 GPS # 118 125	TOPTOFL Z.BT+	DEEP
4:19 P.M. PICTURE # 3568 & 4:211	M. PICTURE # 356	9 SEE PUTURE FOR DETAILS.
BLOWOUT # 15 120.3'\$ SOUTHOF		TOPTOFL (2.60 EDEEP)
ONE SECTION TILE ENSI TO REPORT		GINEERING FABRIC OVERSOINS
REPLACED	2.5 LF 154	O DUAL WALL HOPE NONPERFILE
TEMPORARYREPHIR TILL DISTRICT DECIDES		
ON REPAIR	PSA 178 1.25 TOP TOF	L ZIT'S DEEP
4:29 P.M. PICTURE # 3570 SEE PIC	TURE FOR DETAIL	48.
4:45 P.M. CREW LEFT SITE AFTE	R FINISHING BA	EKFILLING HOLES.
4:51 P.M. PLUTURE # 3571 & 4:52, P.		
S:00 PIM. OBSERVER TORE DOWN 6		
SEE QUANTITIES ON SHE		
I Certify that the work described in this report was incorporate	d into this contract unless of	herwise noted
Ob	Date Prepared:	TigN
Reviewed by:		05/14/2020
	Engineer	
		Date Reviewed

CONSTRUCTION ENGINEERING OBSERVATION REPORT		DATE:	05/14/2020
PROJECT NUMBER:	1 00 WO#	DAYS OF WEEK:	SMTWOFS
COUNTY, ROUTE ROAD. WEST	844,4 /00 14 FOF COHWY 527 BETWEE	SHEET NO.	6 OF 6
LOCATION: DOYLMAINTILE LOCATION: 34-88-22 HARDING	HWY DYL' & ZZOTA ST MED SWNE & NW SE CONNTY	MID SO'S TO UPA WIND MISTS	PER 60'S CLOUDY WITH LIGHT & FOG 'IN MORNING & RAIN
DESCRIPTION OF WORK AND M NAME, ITEM NO. AND LOCATION	MATERIAL USED FOR I	- Control of the Cont	
QUANTITIES			
PAUL (14 Hours		
DOUG	5'4 HOURS		
WILLIAM	6 1/4 HOURS		
		,	
BOBCAT E85	MINI EXCAUAT	OR 61/4	Hours
UTV WITH	CAMERA EQU	LIPMENT 6/4	Houps
TELEVISED UP	STREAM FROM	m GPS# 177	883.3 LF
Dou	NNSTREAM FRO	M 685# 178	995.0 LF.
TEMPORARY REPAI	R TILF BLOWDE	AT IN 6.3 LF 15	" OW HOPE NUNPERFTILE
UNTIL DISTRICT DEC		2-2.0'x	4.5' ENGINEERING FABRIC
ON HOW MUCH TO			Piece3
	TILE BLOW OU	CT ZN 8.54F 15	" DW HOPE WONDERFTILE
		2-20'x	4.5' ENGINEERING FABRICA
	TILE BLOWDY		O DW HOPE NONPERFTUE
<u> </u>		2-20'x4	1.5' ENGINEER INC FARIC
NOTE (#1) 6PS #145 REMOTE ZUAY			PIECES
ONCE REPARDEUDED	TILE BLOWOUT		DW HOPE NONPERFTILE
FIX TEMPORARY REPAIRS		2-201x4	1.5 ENGINEERING FABRIC
NOTE: TILE BLOWOUT	- IN 2N. & ZS	NEED SEEDEL	
TILE BLOWOL	VT IS NEEDS	ADDITIONAL SOL	LIN 6.0'x 6.0'x 1.0'+
	EEP AREA THE		- IN GIO X GIO X IIO E
TILLE IHAS NO	MMEROUS BAD SPO	TS TO NORTH AND	SOUTH OF BLOWOUT IS,
Certify that the work described in the	is report was incorporated	l into this contract unless of	herwise noted.
Observer's Signature:	Penning	Date Prepared:	05/14/2020
Reviewed by:	[Engineer	
			Date Reviewed



COUNTY TILE TELEVISING REPORT

DATE 05 / 14 / 2020

JOB # 6844.4

DD 14 MAIN

UPSTREAM

883.3'

START GPS # 177

END GPS # 145

0.0 CAMERA TIRES IN TILE WITH CAMERA HEAD ABOUT 1.0' +/- INSIDE TILE

FOOTAGE

0.00	6PS# 177 IS" CLMY TILE UPSTREAM @ BLOWOUT IS BLOWOUT SOUTH OF GRASS LAND EAST
0.00	LOWBITHDIWALCRACK & CIRCUMFERENTIAL CRACK. ST 0/5 LEFT (C)
11.4	FINE ROOTS (8 TO 10) LC @ 12
28.8	PLASTICTO CLAY SW (END COLLAPSED DOWN) T NOBEDS REPLACED LC & (12 TO 1) LC & (12 TO 1)
₹1.0 33.8	LC @ (2701)

68.7 CLAY TO CAMP

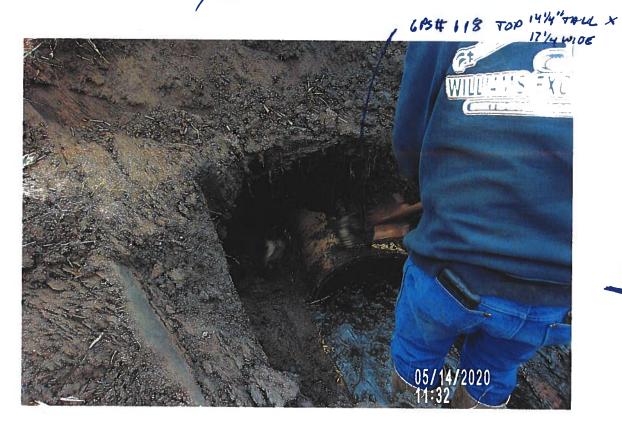
PICTURE # 3538 IS LOOKING SWEBLOWOUT # IS SHOWING CREW TELEVISING UPSSTREAM FROM GPS # 177





PILTURE# 3539 IS LOOK OND WE @ BLOWOUT # ZS SHOWING A 5.0'
LONE CAVITY ON EASTS IDE OF TILE WHERE SOIL BROOFD
AWAY

PICTURE#354D IS LOOK INGSW IN BLOWOUT #28 SHOWING 5.5' LONG ERODED SOIL CAVITY ON EAST SIDE OF TILE









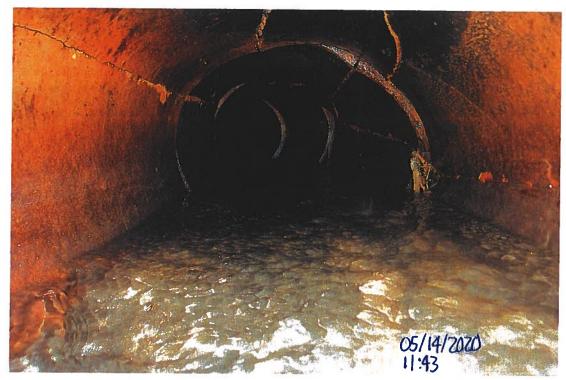
PILTURE 354 | IS LOOKING. SWINSIDE CLAY TILE DOWNSTREAM

INSIDE BLOWDIT 28 SHOWING NEXT COUPLE S. ECTIONS

IN BADSHAPE WITH CRICKS AND CAVINE DOWN; FROM GAS#118

PICTURE # 3542 IS LOOKING NE WSIDE CLAY TILE UPSTREAM INSIDE
BLOWOUT 25 SHOWING NEXT COUPLE SECTIONS IN BAD SHAPE
WITH CRACKS AND APPEAR TO BE CAVING DOWN, FROM ERS# 119







PICTURE#3543 18 LOOKING NEON ENSTSIDE OF TILE AT 5,0 LONG SOIL BRODED CAVITY IN BLOWDERT ZS FROM GAS# 119

PILTURE# 3544 IS LOOKING SW ON EAST SIDE OF TILE AT 5.5 LONG SOIL EROUED CAVITY IN BLOWDED # 28 FRUNGAS#118





PILTURE #3545 IS LOOKING NW MUSIDE BLOWOUT ZN 5,0 & HOLE WITH CORNSTALKS AND SOIL IN BOTTOM.

PICTURE # 354.6 IS LOOKING SOUTH AT BLOWDER ZN (S'Q'HOLE) IN GRASS WATER WAY BACK TOWARD GRASSLANE TO ACREAGE





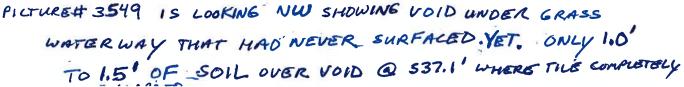
PICTURE# 3547 IS LOOKING UPSTREAM AT COMPLETELY COLLAPSED SECTION OF CLIAY TILE @ 537.2' WHICH HAD NOT SURFACED YET & SOUTH OF TILE BLOWDUT#ZN,

N

PICTURE# 3548 IS LOOKING SE AT TILE BLOWOUT # 2N TILE EXPOSED WITH 5" FLOW.











PICTURE # 3550 13 LOOKING NW SHOWING VOID UNDER GRASS WATERWAY @ 537.1 WHERE TILE COMPLETELY COLLAPSED.







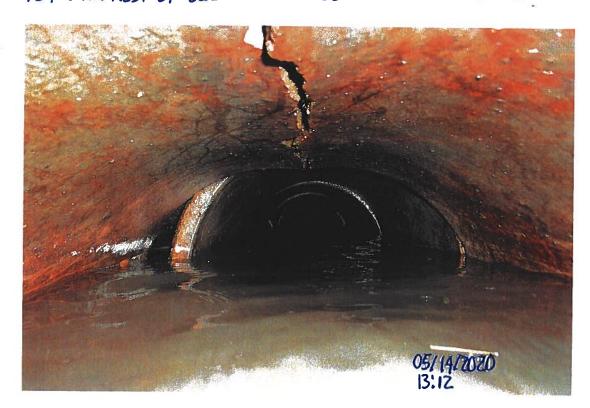


SEVERE LONGITUDINAL CRACK AND CAVING DOWN. UPSTREAM PROM

GPS# 138 WITH SEVERISL OTHER TILE CRACKED AND CAVING DOWN

SEVERAL SEVERISL OTHER TILE CRACKED AND CAVING DOWN

PICTURE#3552 IS LOUKING SE SHOWING IST SECTION OF CLAYTILE WITH LONGITUDINAL CHACKS AND CAVING DOWN DOWN STREAM FROM GAST 139 WITH REST OF SECTIONS OF TILE NOT LOOKING TOO BAD



N



PICTURE # 3553 IS LOOKING NE SHOWING COLLAPSED SECTION OF
TILE REMOVED AND NOW FLOWING GOOD IN BLOWOUT IN

PICTURE# 3557 IS LOOKING NW SHOWING 4.0 LONG ERODED SOIL CAUTTY
ON WEST SIDE OF TILE IN IN TILE BLOWOUT # IN FROM
6P5# 147



NA



N

IN FROM 6PS# 146 SHOWING TILE CRACKED BUT NOT CAUNG DOWN,

PICTURE#3559 15 LOOKING NW INSIDE CLAYTILE FROM GRS#

147 IN TILE BLOWOUT # IN SHOWING TOP CRACKED AND CAVING

DOWN







M/ .

PICTURE # 3560 IS LOOKING NW INSIDE CLAY TILE FROM GPS # 152
IN TILE BLOWOUT # IN SHOWING TILE CRACKED BUT NOT CAVING DOWN.

PICTURE # 3561 IS LOOKING NW SHOWING TEMPORARY REPAIR OF

6.3 LF OF 15" & OUAL WALL NON PERF HOPETILE INSTALLED

IN TILE BLOWOUT #IN WITH BOTH JOINTS WRAPPED WITH FABRIC.





LPS#15Z TOP 15.25"TALL 16" WIDE CLAY (1.34 TOP TOFL)

TOP 15" TOP 15" TOP 15" WIDE CLAY (1.32" TOP TO FL)

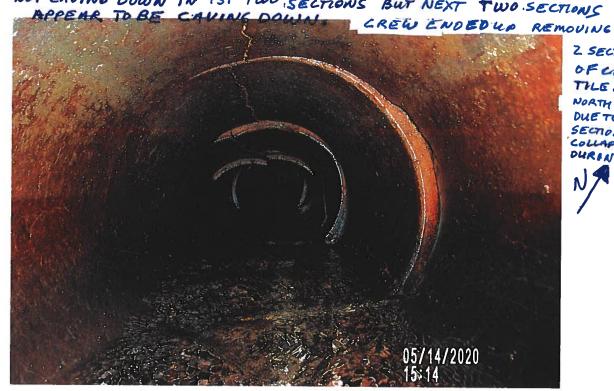


N

PICTURE # 3562 IS LOOKING SE INSIDE CLAY TILE FROM 6PS# 175
IN TILE BLOWOUT # 2N SHOWING TILE WITH FINE CRACKS BUT
NOT CAVING DOWN

PILTURE #3563 IS LOOKING NW INSIDE CLAY TILE FROM GPS #176

NOT CAVING DOWN IN 1ST TWO SECTIONS BUT NEXT TWO SECTIONS



Z SECTIONS

OF CLAY

TVLE ON

NORTH END

DUE TO NEXT

SECTION

COLLAPSING

DURING

NEMOUNT

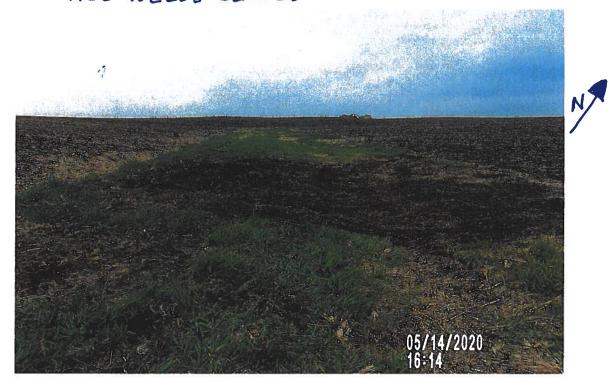


PICTURE # 3564 IS LOOKING WORTH SHOWING CREW INSTALLED 8.5 LF OF 15" OF DUAL WALL NONPERF TILE IN BLOWOUT # 2N WITH BOTH JOINTS WRAPPED WITH FABRIC FOR TEMPORARY REPAIR UNTIL DISTRICT

PICTURE # 3567 IS LOOKING NW SHOWING TILE BLOWOUT #ZN

BACK FILLED AND DRESSED UP IN GRASS WATERWAY BUT

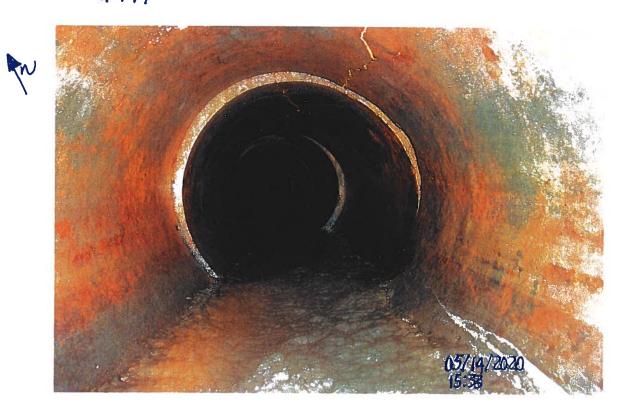
STILL NEEDS SEEDED





PICTURE # 3568 IS LOOKING NE SHOWING 26 LF OF 15 POUALTORY WALL HOPE NONPERF TILE INSTALLED WITH BOTH JOINTS WRAPPED WITH FABRIC FOR TEMPORARY REPAIR IN BLOWOUT # 25

PICTURE# 3565 IS LOOKING NE INSIDE CLAYTILE UPSTREAM INSIDE
BLOWOUT # 18 SHOWING TILE CRACKED BUT NOT CAKING DOWN FROM
GPS # 177





PICTURE# 3566 IS LOOKING NW SHOWING TILE BLOWOUTH I.N

BACKFILL ED AND DRESSED UP IN GRASS WATERWAY BUT

STILL NEEDS SEEDED

PICTURE#3569 IS LOOKING SW INSIDE CLAYTILE DOWNSTREAM
INSIDE BLOWOUT #15 SHOWING TILE CRACKED AND CAVING DOWN
SOMEFROM GPS# 1785





PICTURE # 3570 IS LOOKING NW SHOWING 2.5 LF OF 15 " B DUALWALL HOPE NONPERF TILE WITH BOTH JOINTS WRAPPED WITH FABRIC FOR TEMPORARY REPAIR IN BLOWOUT # 15.

PICTURE # 3571 IS LOOKING NORTH SHOWING BLOWOUT ZS

BACKFILLED AND DRESSED UP BUT NEEDS SEEDED

YET.





PICTURE # 3572 IS LOOKING NORTH SHOWING BLOWOUT IS

BACKFILLED. HOLE IS STILL SHORT OF SOIL IN 6.0'X 6.0'

X LO' ± DEEP AREA. NEED TO BACK FILL MORE SOIL AND SEED

WRc MSCC Third Edition

Inspection Report

Produced on behalf of – HARDIN CO Site location – , Survey reference – W/O 290 Date – 140520

WILLIAMS UNDERGROUND SVCS.

102 INDUSTRIAL DRIVVE, ACKLEY, IOWA
50601,
641-485-3925

Contents

1	Drain / Sewer Survey	Error! Bookmark not defined.
1.1	.1 Site information	Error! Bookmark not defined.
1.2	.2 Drain / Sewer Details	Error! Bookmark not defined.
1.3	.3 Survey Details	Error! Bookmark not defined.
1.4	.4 Drain / Sewer Diagram	Error! Bookmark not defined.
1.5		
1.6		
2	Drain / Sewer Survey	Error! Bookmark not defined.
2.1	1 Site information	Error! Bookmark not defined.
2.2	2 Drain / Sewer Details	Error! Bookmark not defined.
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2.5		· · · · · · · · · · · · · · · · · · ·
2.6		

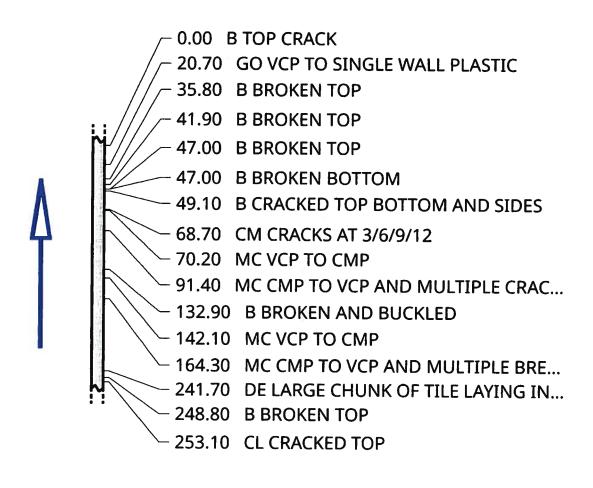
1 Drain / Sewer Survey

1.1 Survey Header

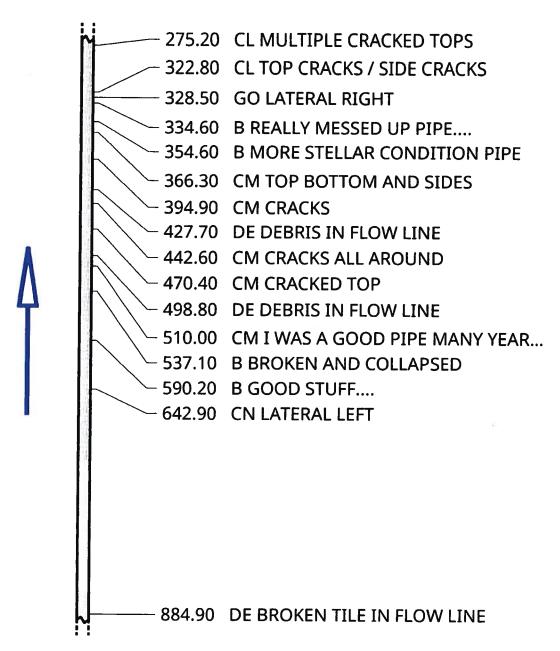
1.1.1	Surveyed by (Operator)	PAUL
1.1.2	Contract no.	
1.1.3	Job no.	W/O 290
1.1.4	Catchment (Drainage area)	DD14
1.1.5	Division	
1.1.6	District	DD14
1.1.7	Pipeline length ref	1000
1.1.8	Date	140520
1.1.9	Time	11:03
1.1.10	Location	
1.1.11	Start manhole no.	
1.1.12	Start depth	m
1.1.13	Start cover level	
1.1.14	Start invert level	
1.1.15	Finish manhole no.	
1.1.16	Finish depth	m
1.1.17	Finish cover level	
1.1.18	Finish invert level	
1.1.19	Use of Drain	
1.1.20	Direction	U
1.1.21	Size 1 (diameter/height)	18mm
1.1.22	Size 2 (width)	mm
1.1.23	Shape	C
1.1.24	Material	VC
1.1.25	Lining	
1.1.26	Pipe length	m
1.1.27	Total length	
1.1.28	Year laid	
1.1.29	Video cassette number	
1.1.30	Comments: General	
1.1.31	Purpose	F
1.1.32	Sewer category	
1.1.33	Pre-cleaning	
1.1.34	Weather	
1.1.35	Location code	
1.1.36	Further location details	

1.2 Diagram

[page 1/2]



[page 2/2]



1.3 Observations

Video Ref	Dist (ff)	Cont	Code	Photo Ref	Diameter/		Clock	Intru	sion	
video nei	Dist (it)	Defect	Code		Dimension	At	To	%	mm	Remarks
0:00:32	0.0		В	2020_05_14- 11_06_59_253.jpg		12	12			TOP CRACK
0:03:23	10.7		GO	2020_05_14- 11_10_19_975.jpg	er com cronces	The state of the s	e en	av navne av tro	200 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	VCP TO SINGLE WALL PLASTIC
0:10:12	35.8		B against a state of the state	2020_05_14- 11_18_15_064.jpg	A THE PERMIT	11	01	78 10 Services	httir adjulaktivi ta tang	BROKEN TOP
9:11:09	41.9		Bulletin and the second	2020_05_14- 11_19_50_872.jpg	The state of the s	12	01	rateria de la descripción de la descripción de la descripción de la descripción de la dela del del del del del	Company of the Compan	BROKEN TOP
:11:54	. auros inserci 47.0		В	2020_05_14- 11_20_59_932.jpg		12	02	Series and any angle of the	erine di periodo estro e erropeter a	BROKEN TOP
:12:24	47.0		В	2020_05_14- 11_21_48_750.jpg		06	06	PSP ORGANI D.P. Y.	to the control of the	BROKEN BOTTOM
:12:56	: to room of the tell of 19.1		В	2020_05_14- 11_22_48_871.jpg		12	111	1724 PROSE NO 22 1 NA	STATE OF ST	CRACKED TOP BOTTOM AND SIDES
16:39	68.7	e de la composition della comp	СМ	2020_05_14- 11_27_25_733.jpg		11	To the second se			CRACKS AT 3/6/9/12
17:04 7	0.2		MC	2020_05_14- 11_28_55_319.jpg		-ger a.s.	ericida de la companya en constante de sente de la companya de la	MT17.5745	pi o mario and	VCP TO CMP
19:04 9	cossone (1864) 11,4		WC	2020_05_14- 11_31_33_629.jpg	10 The Paris of th	distruy	ing protestion of the		en e	CMP TO VCP AND MULTIPL

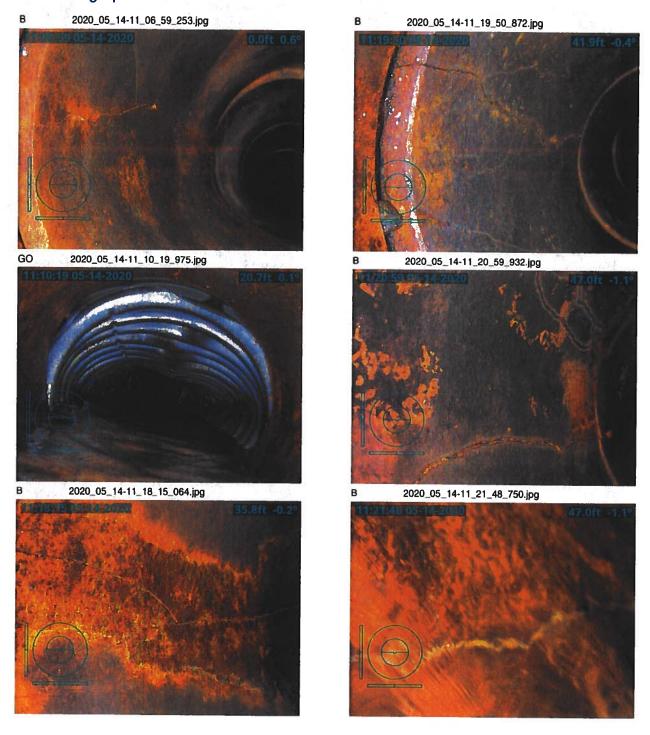
Page 6

Video Ref	Diet (ft)	Cont	Code	Photo Ref	Diameter/	1	Clock	Intrus	ion	Pomorko
AIGO UGI	niar (III)	Defect	Code	Citoto nei	Dimension	At	То	%	mm	Remarks
SIONE O PERSONNELLA MES	THE COURT OF A PARTY OF THE PAR	The second	A PARTIE AND A PAR		SPART WEET BEAUTY LEAVE.	Marin Japan	A CARTON AND	730268-256	reduces and	CRACKS ALL AROUND
0:21:14	132.9	Complete Company	В	2020_05_14- 11_34_21_116.jpg	and in medicine	12	11	na rabutani d	24124 (0/2)	BROKEN AND BUCKLED
0:21:48	142.1	- Chair (2-14), 172, 1	MC	2020_05_14- 11_35_23_408.jpg		American Company of the Company of t	0.00	septemen.	9 - English (12 - 24 - 24 - 24 - 24 - 24 - 24 - 24 -	VCP TO CMP
D:22:45	164.3	Q (17) 4 (1,1 or res)	MC	2020_05_14- 11_36_46_142.jpg		resonante e sus resolutivos e se sus principales y cultura e constituir de la constituir de la constituir de l	10 HIV.	w 24175 - F1.3	ha Tra (\$160-18 to 15 \$2 \$1 \$1 \$1	CMP TO VCP AND MULTIPLE BREAKS AT ALL CLOCK POSITIONS
0:27:05	241.7	A x x	DE	2020_05_14- 11_42_18_623.jpg	2 (A) (2 (A) (A) (A) (A) (A) (A) (A)	4-14	Control of	35%	and according	LARGE CHUNK OF TILE LAYING IN FLOW LINE
):28:47	248.8		В	2020_05_14- 11_45_05_840.jpg	P TO THE TRY TO SE	12	12	200	on Courts	BROKEN TOP
):29:39	253.1		CL	2020_05_14- 11_46_32_650.jpg	**************************************	12	1	24 (4 (2 (4 ())))	and the second	CRACKED TOP
:31:09	275.2		CL	2020_05_14- 11_48_36_134.jpg		12			Total Wall	MULTIPLE CRACKED TOPS
:33:47 (322.8		CL	2020_05_14- 11_51_44_890.jpg		12			12 12 12 12 12 12 12 12 12 12 12 12 12 1	TOP CRACKS / SIDE CRACKS
:35:01	328.5	Carried Courts		2020_05_14- 11_53_44_167.jpg	in training expenses	GOVERNO	1	(1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	ale or terr	LATERAL RIGHT

Video Ref	Diet (ff)	Cont Defect	Code	Photo Ref	Diameter/ Dimension	Clock		Intrus	ion	Pomosks
TENTERAL MARKET						At	То	%	mm	Remarks
0:35:36	334.6		В	2020_05_14- 11_56_23_311.jpg	ACTUAL MARCO	12	11	- ADMINISTRATE	2012	REALLY MESSED UP PIPE.
0:36:50	354.6		В	2020_05_14- 11_58_15_678.jpg	and the second	11	12		MT LAPE, N. CAST BY STA	MORE STELLAR CONDITIO PIPE
0:37:47	366.3		СМ	2020_05_14- 11_59_48_835.jpg	. H. S. H. S.	11	12	- 10g F (4) (00, 10 %)	a a fra mhrega is a	TOP BOTTOM AND SIDES
):39:47	394.9		СМ	2020_05_14- 12_02_18_136.jpg	**************************************	11	12	15-15-A-7-1-1		CRACKS
:41:19	427.7		DE	2020_05_14- 12_04_25_887.jpg	Sc. 15-41 art 11 0 × 12 -			25%	2 (2 ng n + +) ,	DEBRIS IN FLOW LINE
:42:27	442.6	-	CM	2020_05_14- 12_06_25_077.jpg	eno centro (de centro de	11	12		9	CRACKS ALL AROUND
44:01	470.4		СМ	2020_05_14- 12_08_37_024.jpg		12	02	2.0		CRACKED TOP
46:09	498.8		DE	2020_05_14- 12_11_14_320.jpg	enon - a am		27-02-9	25%		DEBRIS IN FLOW LINE
47:23 5	510.0	certie upoce	СМ	2020_05_14- 12_12_59_862.jpg	en elektrisk fransk	11	12	A Michigan		I WAS A GOOD PIPE MANY YEARS AGO

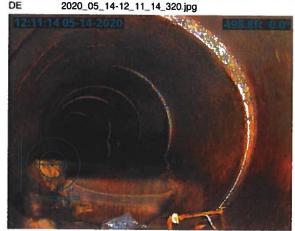
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Westerness	MENTERCHIE	Defect	Coue	rnoto Ret	Dimension	At PER ENT	To	%	mm	Remarks
	market distance of the section of th	Aplantation of the property of the control of the c	da di najiripanjanakan banganjanjana	VA	The second secon					
):50:12	537.1	and the state of t	В	2020_05_14-		08	18411 225 1540 AV	tingle modernes	endisenu 2	BROKEN AND COLLAPSED
	macro na respersan da papagan paga	and there is when any and the		12_16_39_476.jpg	ge had geginde som a myster	or Article Management and Article Arti	that for a toke follows make to		- Annie de la companie de comp	SHOREWARD COLEAN GED
	ografija, marija, primara kan pangan dan pan				- NA CONTRACTOR OF THE PROPERTY OF THE PROPERT	nde Anton se se designification, timban	in advicemental stray is not required by in		period d Patricing apogues;	TO THE P. CO. ST. CO.
:19:44	590.2	ista vanira i et la	В	2020_05_14- 13_24_29_424.jpg	The second secon	10	12	in the second	TO TO THE GOLD	GOOD STUFF
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7			emiliar in spr. de van make di dampe ke pe sed pe			a no partie de print de comme versión	the publishing of the state of		en en en en en en en en en entre de constanten en en entre en	
:31:25	884.9	42-16	DE	2020_05_14- 13_37_34_943.jpg	- 11:40	hed heve be	MESFEE III	50%	S-100000	BROKEN TILE IN FLOW LINE
Management and April 1 min to 10 mil			dependencies in radio transfer			and design to the second	5	distribution warms makes a classification	eta esperialenta (Septembra esperialenta)	

1.4 Photographs



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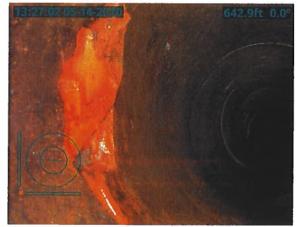






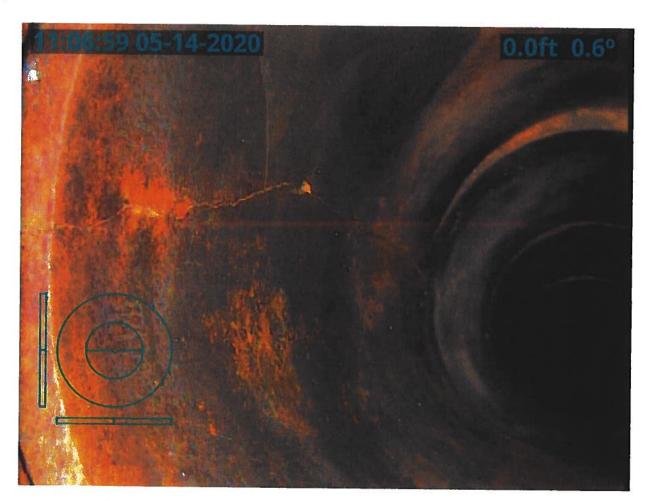


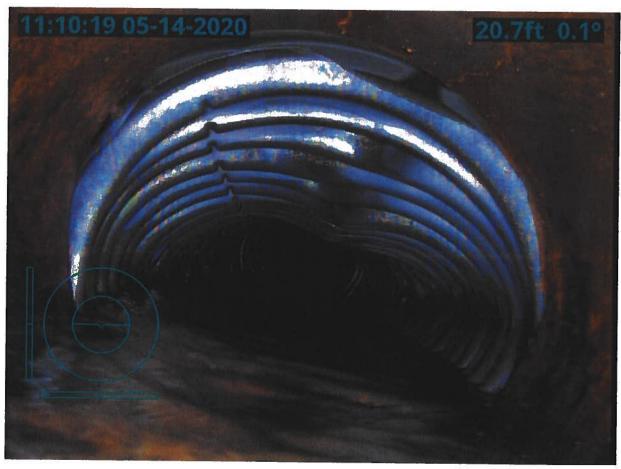




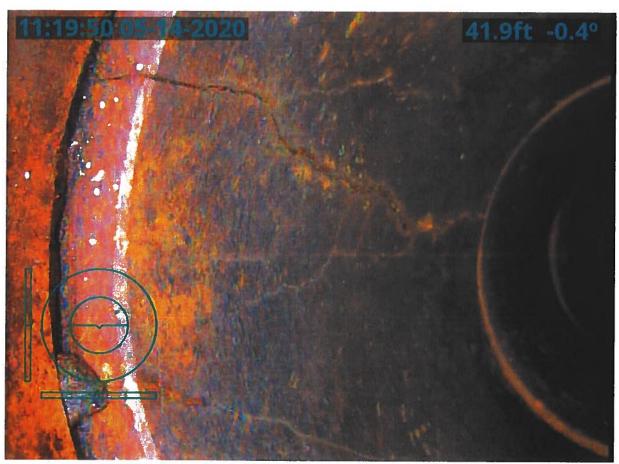
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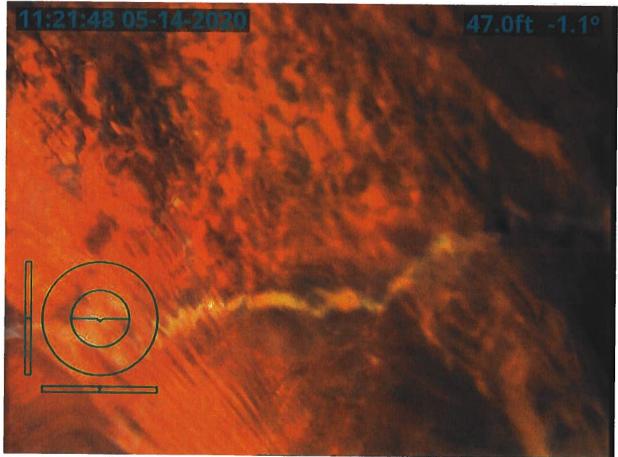




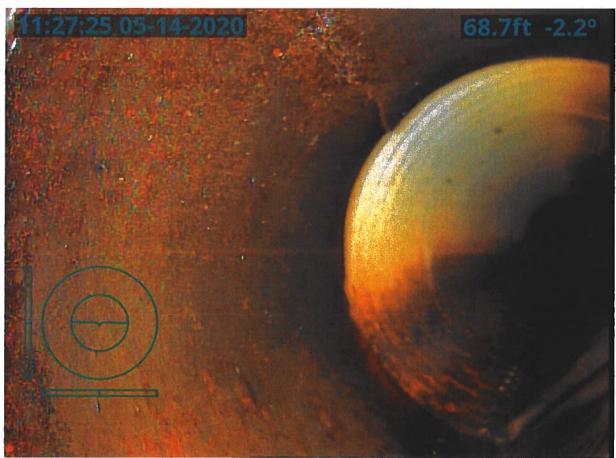




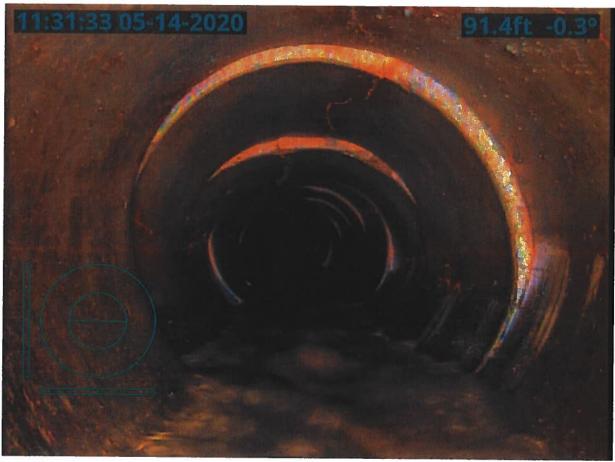


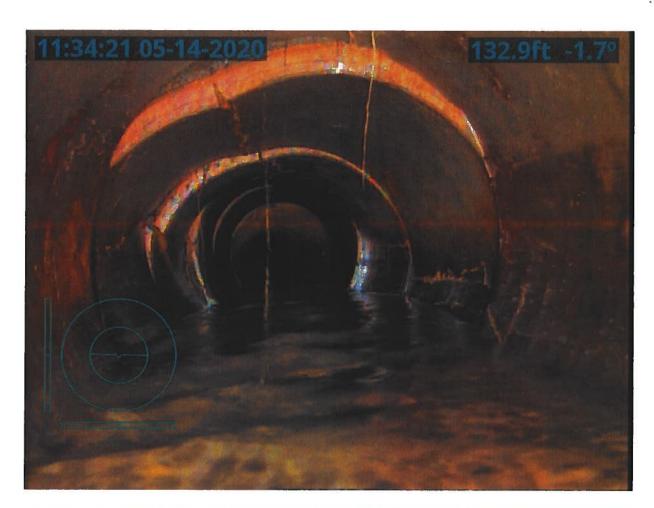




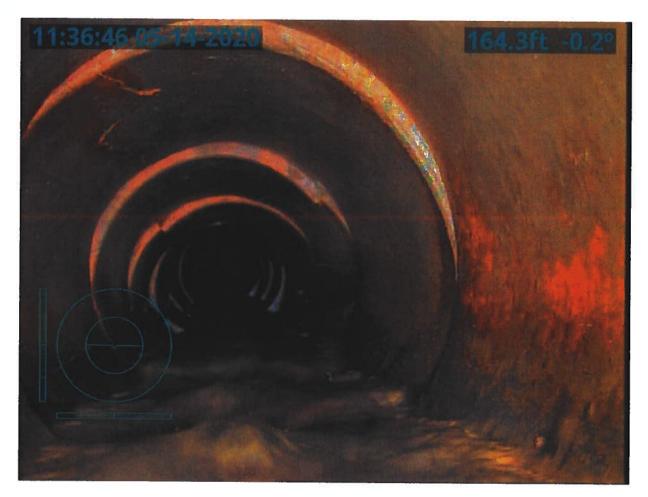


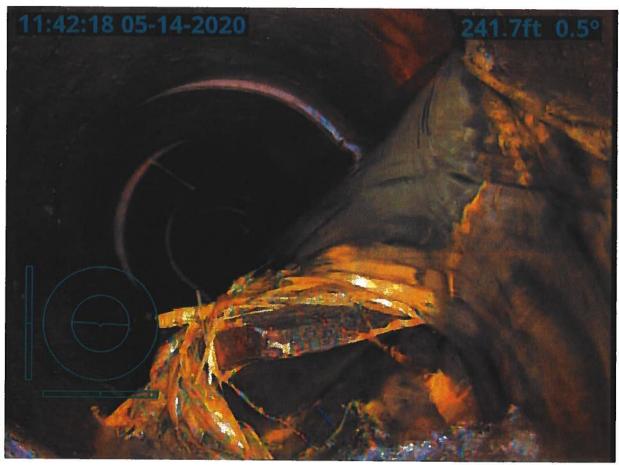


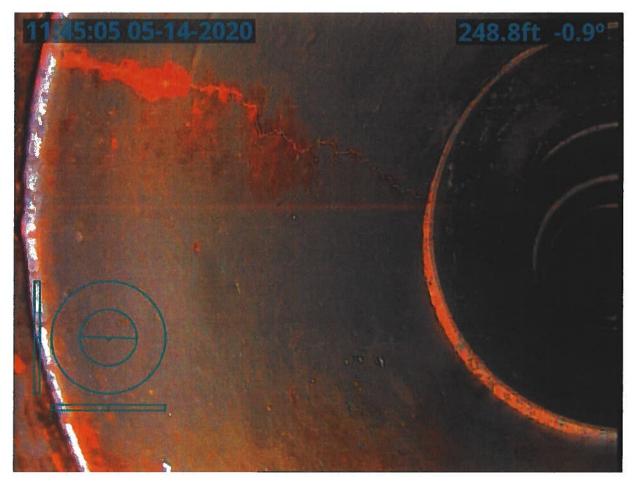


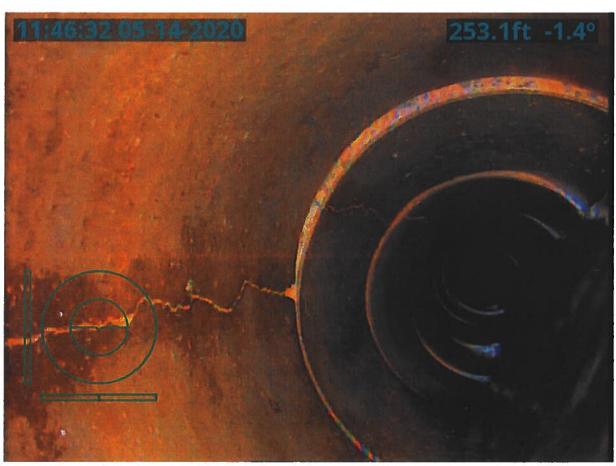


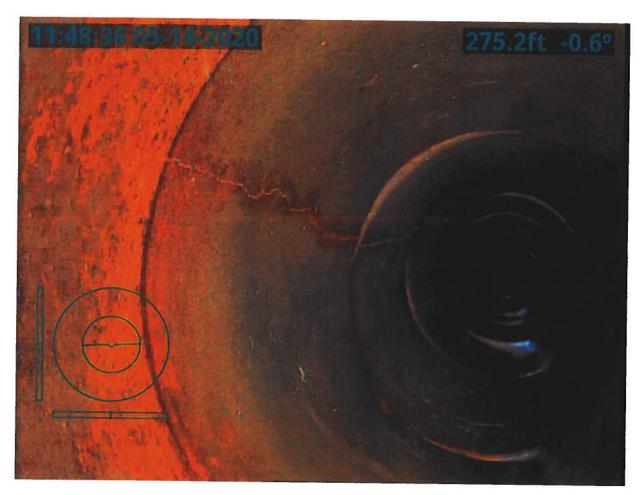


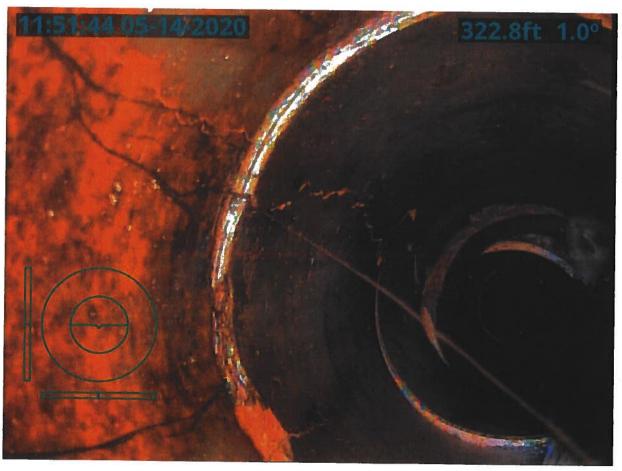


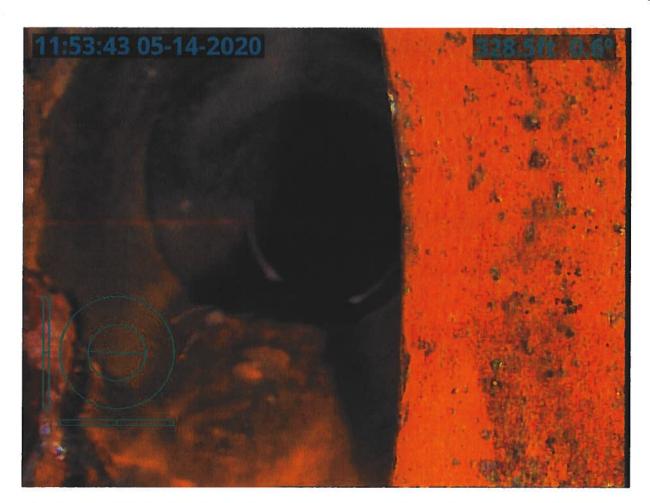


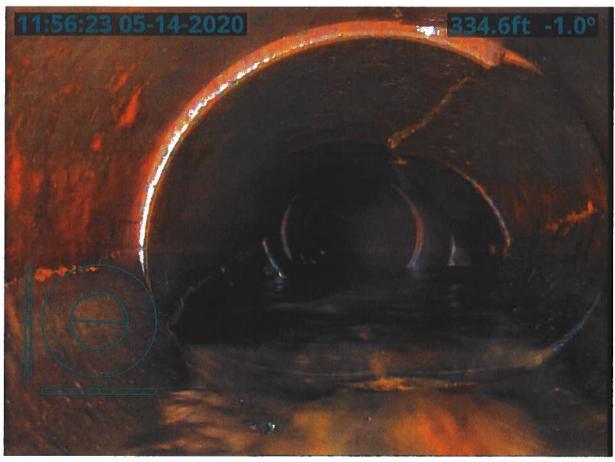


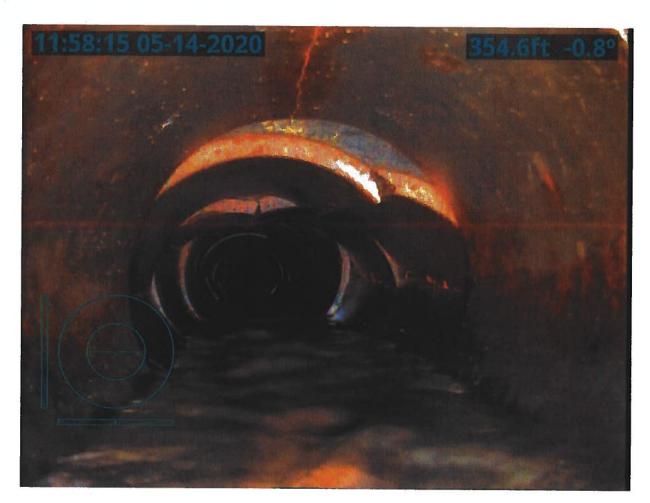


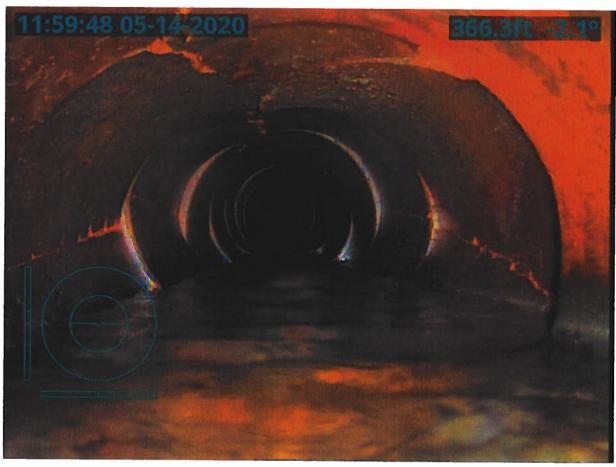


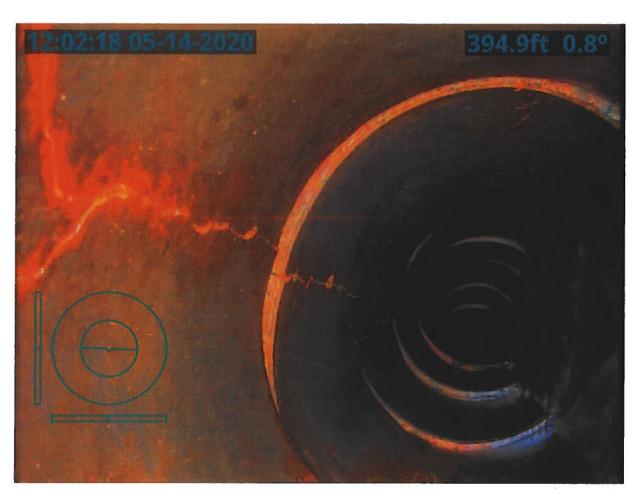


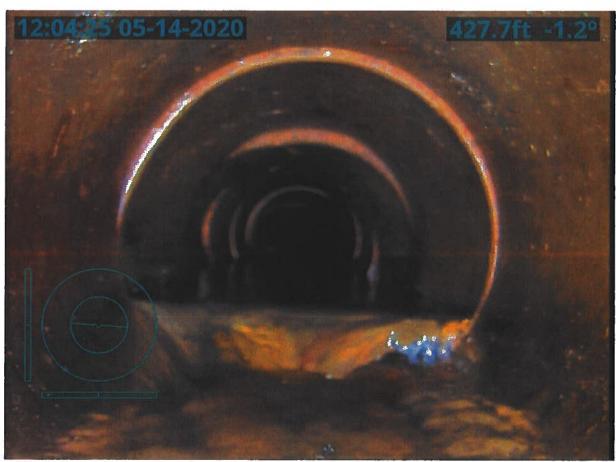


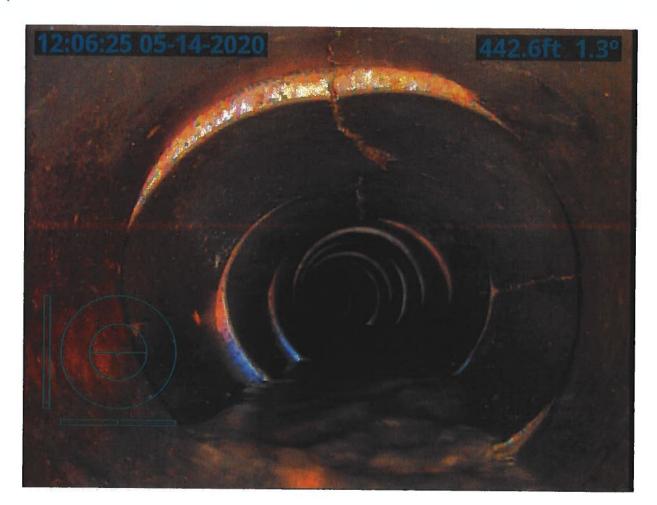


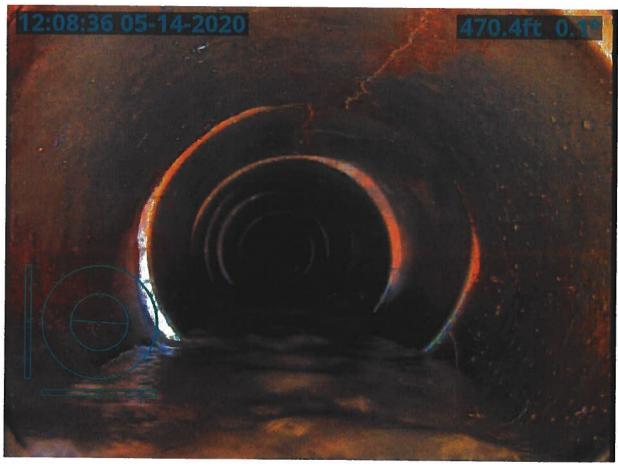


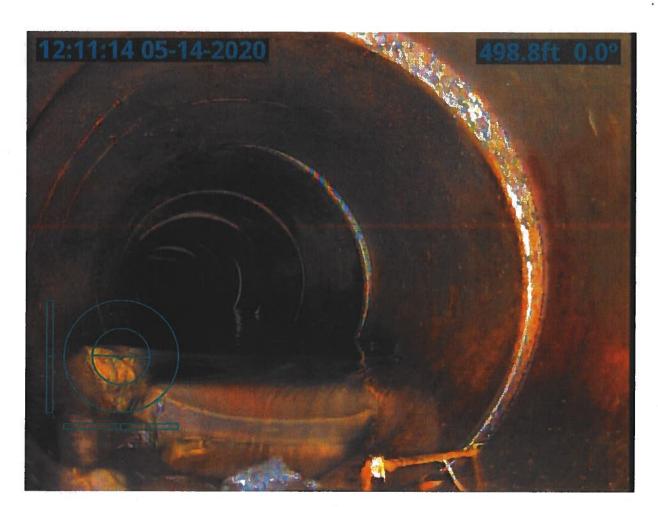


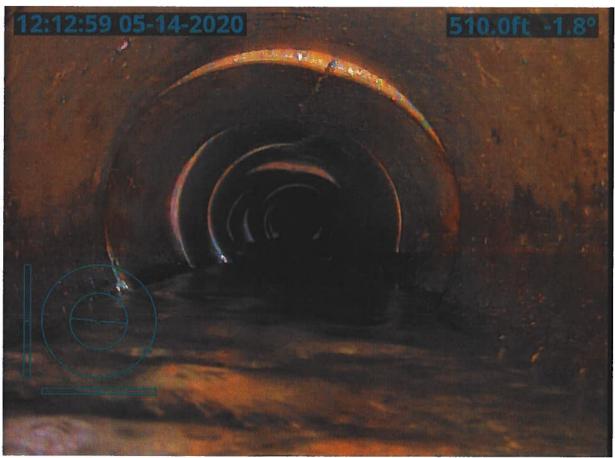




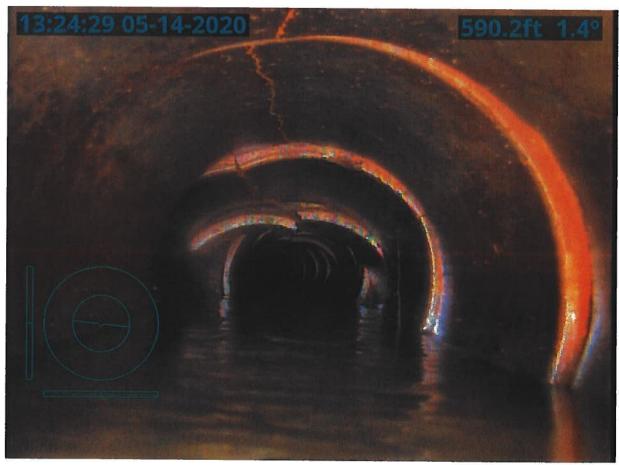


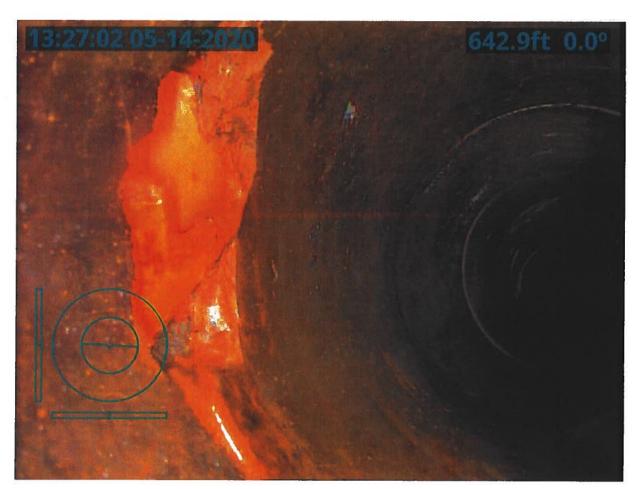


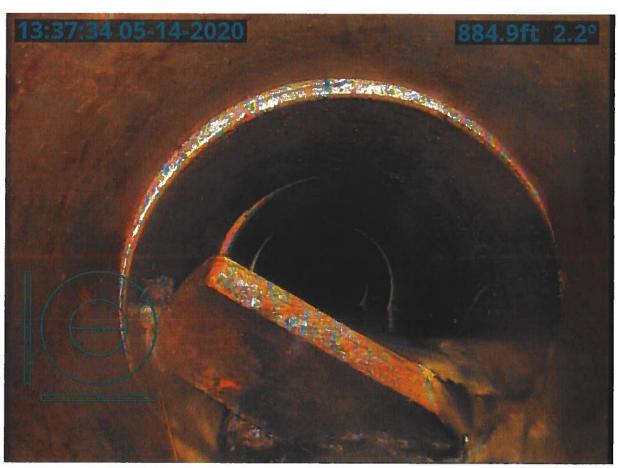












WRc MSCC Third Edition

Inspection Report

Produced on behalf of – HARDIN
Site location – ,
Survey reference –
Date – 140520

WILLIAMS UNDERGROUND SVCS.

102 INDUSTRIAL DRIVVE, ACKLEY, IOWA
50601,
641-485-3925

Contents

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1.2	Drain / Sewer Details Error! Bookmark not defined.
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1.5	Observations Error! Bookmark not defined.
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2	Drain / Sewer Survey Error! Bookmark not defined.
2.1	Site information Error! Bookmark not defined.
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2.3	Survey Details Error! Bookmark not defined.
2.4	Drain / Sewer DiagramError! Bookmark not defined.
2.5	Observations Error! Bookmark not defined.
2.6	Photographs

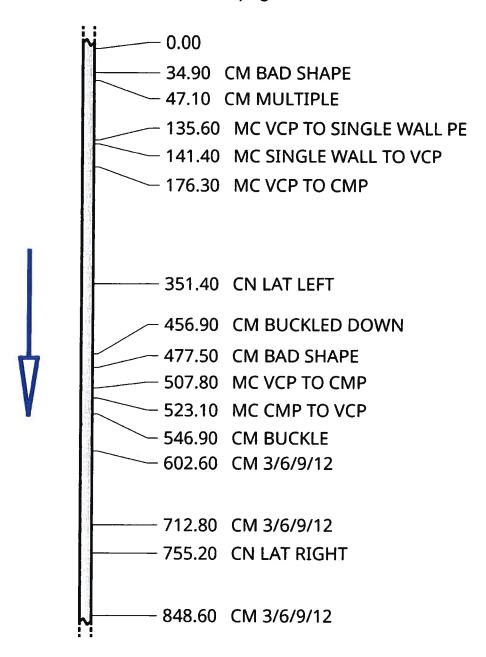
1 Drain / Sewer Survey

1.1 Survey Header

1.1.1	Surveyed by (Operator)	PAUL
1.1.2	Contract no.	
1.1.3	Job no.	
1.1.4	Catchment (Drainage area)	DD14
1.1.5	Division	
1.1.6	District	HOLE #1
1.1.7	Pipeline length ref	1000
1.1.8	Date	140520
1.1.9	Time	14:40
1.1.10	Location	
1.1.11	Start manhole no.	to an a superior of the superi
1.1.12	Start depth	m
1.1.13	Start cover level	
1.1.14	Start invert level	
1.1.15	Finish manhole no.	
1.1.16	Finish depth	m and the second
1.1.17	Finish cover level	
1.1.18	Finish invert level	20 20 20 20 20 20 20 20 20 20 20 20 20 2
1.1.19	Use of Drain	The second secon
1.1.20	Direction	D
1.1.21	Size 1 (diameter/height)	15mm
1.1.22	Size 2 (width)	POSSIBLY 18mm
1.1.23	Shape	С
1.1.24	Material	VC
1.1.25	Lining	
1.1.26	Pipe length	1000m
1.1.27	Total length	The state of the s
1.1.28	Year laid	
1.1.29	Video cassette number	
1.1.30	Comments: General	
1.1.31	Purpose	F
1.1.32	Sewer category	Z
1.1.33	Pre-cleaning	
1.1.34	Weather	
1.1.35	Location code	
1.1.36	Further location details	

1.2 Diagram

[page 1/1]



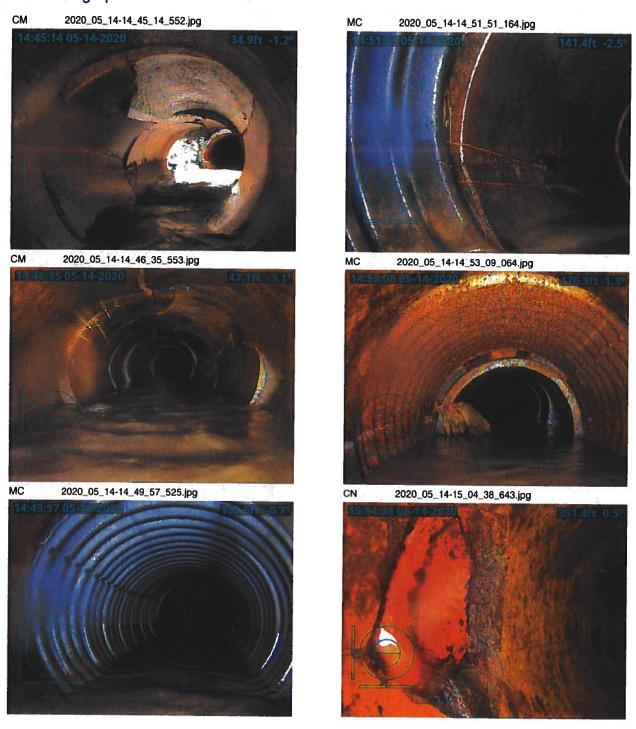
1.3 Observations

Video Ref	Dist (ff)	Cont	Code	Photo Ref	Diameter/	1	Clock	Intrus	ion	Domorko
TIGO NEI	Diat (it)	Defect	Code	r noto nei	Dimension	At	То	%	mm	Remarks
0:02:43	34.9		СМ	2020_05_14- 14_45_14_552.jpg	is de la comunicación de la comu	08	02	of subjects and occurs		BAD SHAPE
0:03:29	47.1		СМ	2020_05_14- 14_46_35_553.jpg		08	04	**************************************	oca name	MULTIPLE
0:06:19	135.6		MC	2020_05_14- 14_49_57_525.jpg				Constitution of the Con-	e de la companya de l	VCP TO SINGLE WALL PI
0:07:03	141.4		MC	2020_05_14- 14_51_51_164.jpg				ka rwane		SINGLE WALL TO VCP
0:08:02	176.3		МС	2020_05_14- 14_53_09_064.jpg				See Section 12 to 1 to	os moures	VCP TO CMP
D:19:16	351.4		CN	2020_05_14- 15_04_38_643.jpg	4?	10		100	*3****	LAT LEFT
D:22:26	456.9	The state of the s	СМ	2020_05_14- 15_08_30_218.jpg		08	04		4-1-1	BUCKLED DOWN
D:23:48	477.5		СМ	2020_05_14- 15_13_40_522.jpg		08	03			BAD SHAPE
0:25:02	507.8	N. 187. P. 18	мс	2020_05_14- 15_15_19_324.jpg						VCP TO CMP
:27:07	523.1	F-27.475.100	мс	2020_05_14- 15_17_43_224.jpg	. 10-69-1957-19		tile (server)	Ca 7t Tallaria	and the second second	CMP TO VCP

Page 5

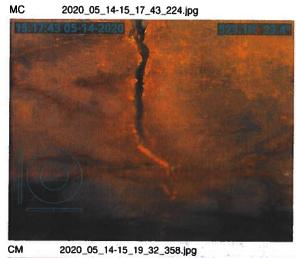
Video Ref	Diet (ft)	Cont	Code	Photo Ref	Diameter/		Clock	intrus	sion	in to mention the part of the time of the time that the time of the time that the time the time that the time the time the time that the time the time that the time that the time that the time that the time the time that the time the time that the time that the time the
Parallel Res		Defect	Code	Photo Rei	Dimension	At	To	%	mm	Remarks
0:28:36	546.9		СМ	2020_05_14- 15_19_32_358.jpg	orton er SS (Marie Carlo)	11	04		A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	BUCKLE
0:30:08	602.6	desire et august des une et a august des saus et a a supe	CM	2020_05_14- 15_21_29_661.jpg	# 49-30 (\$ (\$ (\$ (\$ ***)))	12	111			3/6/9/12
0:33:47	712.8	of principle organic browns to see as a	СМ	2020_05_14- 15_25_39_785.jpg		01	12	10 mm 1 m	es e engles i un grand processo anno especial de mondespe	3/6/9/12
0:35:56	755.2		CN	2020_05_14- 15_28_19_497.jpg	47	02		- 1 - 1 - 12	, flang	LAT RIGHT
0:38:02	848.6		СМ	2020_05_14- 15_30_54_138.jpg	Community and the second secon	01	12	And the state of t	to being we a series many appropriate agency and	3/6/9/12

1.4 Photographs

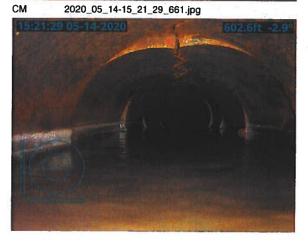












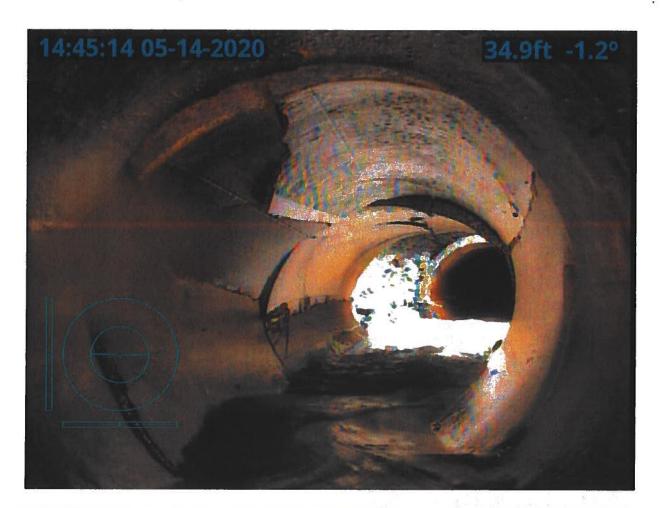


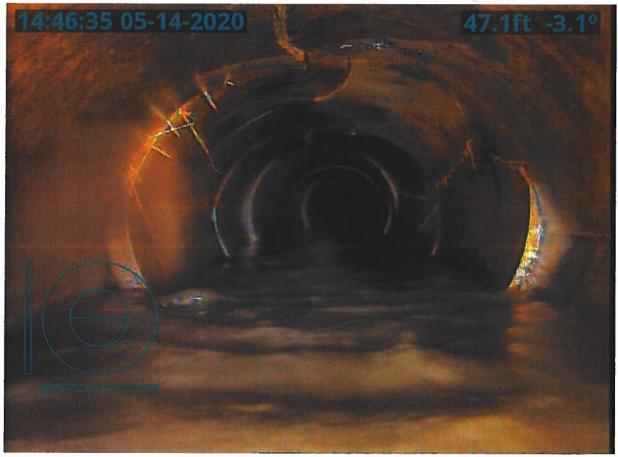
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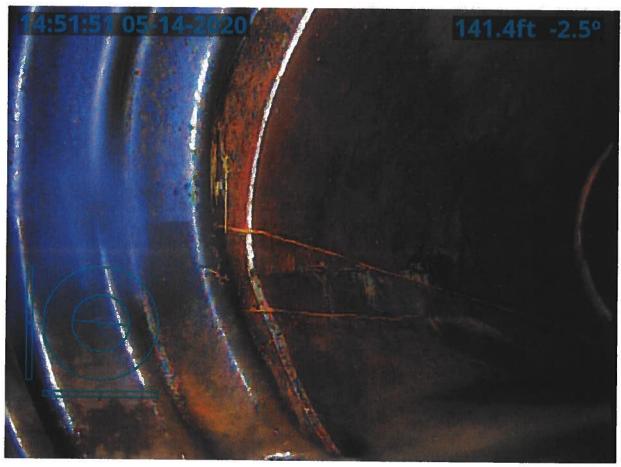
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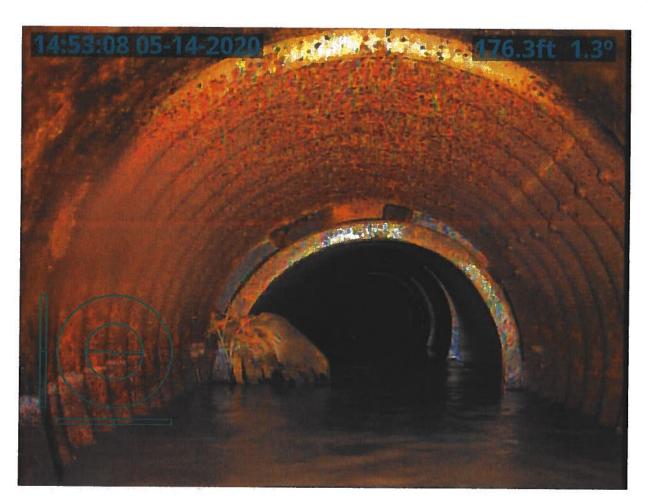




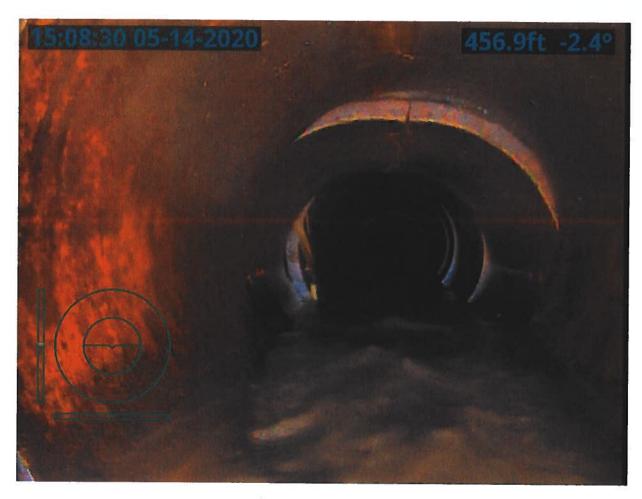


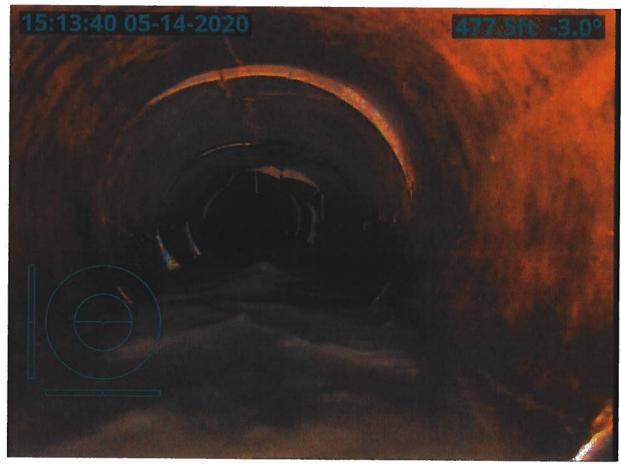


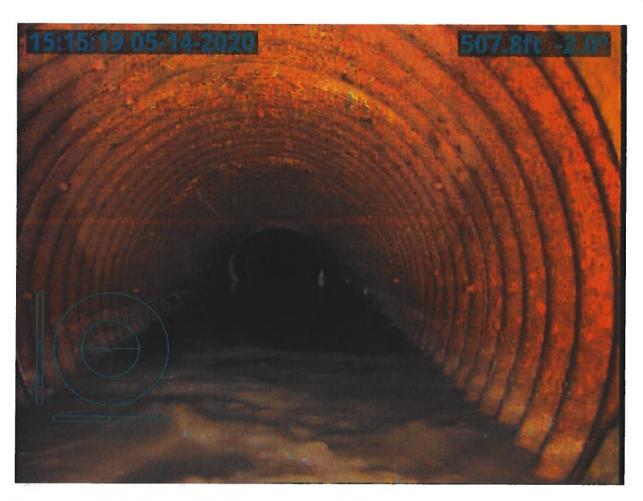


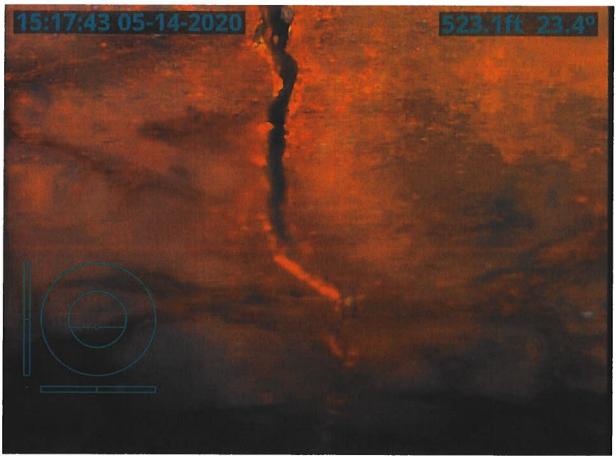


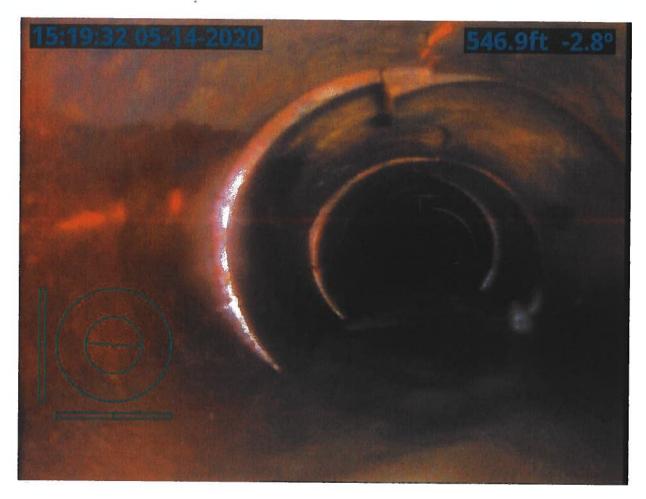




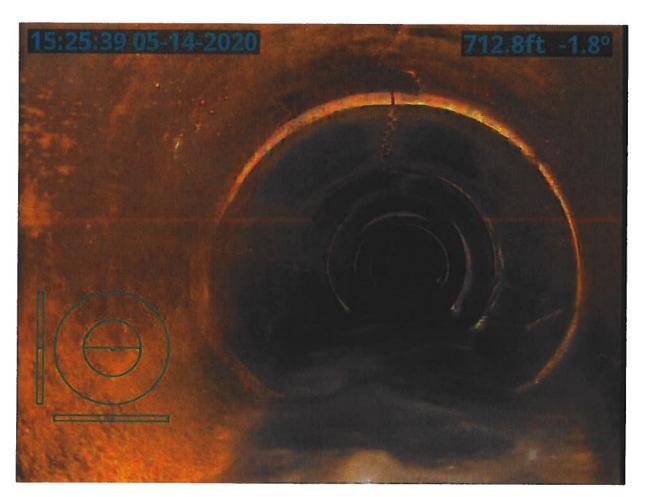


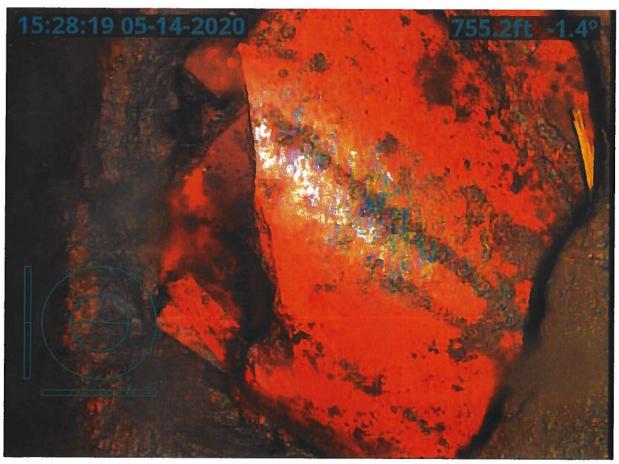


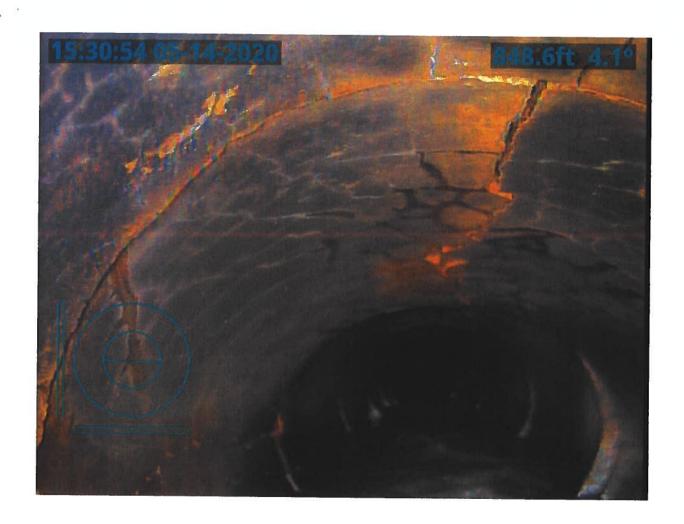












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19,3605485.212,4952217.754,1137.030,FENCE E-W
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21,3605484.284,4952146.915,1142.370,SURVEY MARK NAIL
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33,3608037.548,4950953.803,1145.213,GS
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35,3607980.101,4950921.322,1144.873,GS
36,3608000.481,4950932.767,1140.940,TOP 15" HDPE PERFTILE (0.67'NTOBELL)(1.35'TOPTO
37,3608084.607,4950949.402,1145.388,GS FIELD/DITCH
38,3608084.599,4950983.584,1145.143,GS FIELD/DITCH
39,3608082.212,4951024.307,1146.627,GS FIELD/DITCH
40,3608100.133,4950999.532,1145.416,FL 4'*2'TALL CONC BOX
41,3608089.162,4950987.889,1148.373,TOP 6" HICKENBOTTOM INTAKE (6.31' TOP TO FL)
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6844 DD14 2020-5-14 DP.txt

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106,3606781.230,4950330.843,1139.443,GS
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115,3606801.757,4950336.845,1134.463,TOP 15" HDPE PERF TILE
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142,3606093.946,4950024.079,1131.195,GS TILE LOCATE
143,3606148.452,4949995.916,1131.594,GS TILE LOCATE
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145,3606198.408,4949987.796,1132.012,GS TILE LOCATE END LOCATE
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147,3605913.527,4950161.426,1125.261,TILE TOP "CLAY 1.05'TOPTOFL REMOVED
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150,3605945.044,4950140.580,1129.365,GS ABOVE TILE
151,3605953.724,4950134.445,1129.394,GS ABOVE TILE
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4/15/2020

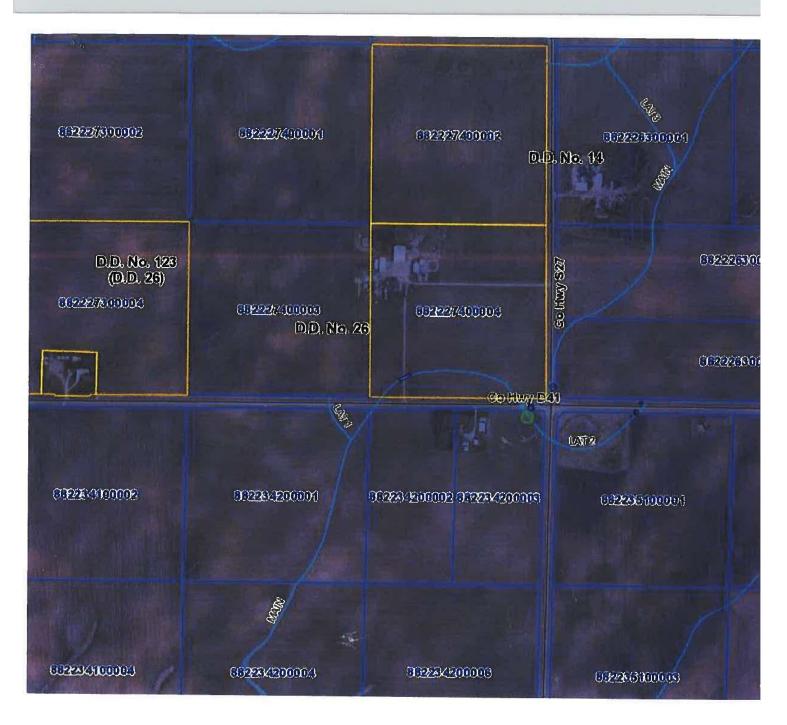
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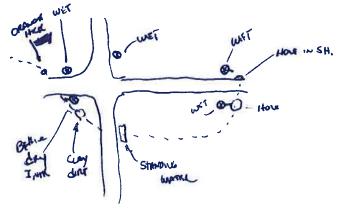
Drainage Work Order Request For Repair Hardin County

Work Order #:	WO00000291					
Drainage District:	DDs\DD 14 (51027)					
Sec-Twp-Rge:	34-88-22 Qtr Sec: <u>E1/2 NE NE</u>					
Location/GIS:	88-22-34-200-003					
Requested By:	James Sweeney/Cynthia loger/Jim & Ron Vierk	andt				
Contact Phone:	(641) 847-3273					
Contact Email:	jsweeney@cgaconsultants.com					
Landowner (if different):	Ron/Jim Vierkandt/Cynthia loger 64/-323-4051					
Repair labor, material	DD 14- Sweeney reports plugged main tile in Jii pothole/explore tile on S side of D41, likely maintersection where tile goes under road needs downstream of intersection of Lat 2/main tile. to effectively farm area it should drain. Pothole not drain. Also, broken intake @ Lat 2 intersect	n tile. Intake further E of D41 & S27 repair. See Add'l Req in docs- lack of drg Last 3 years, Lat 2 has lacked enough drg s dug by landowners in Sects 34/35 do ion w D41 in Sect. 35.				
Repaired By:		Date:				
Please reference work	order # and send statement for services to:	Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245				
Approved:		Date:				



District #	#14	L	ateral	Lat 2 & Main	Fund #	
Township			Section 27,	34, 35 _{wp} 88	Rge 22	Qtr Sec
Repair Request	ed By	Cynthia loerger, Ronald Vie	rkandt, Jame	s Vierkandt		
Address		15898 Co Hwy D41			Phone	
andowner		Same				
ddress		Same			Phone	an makalan kepidengan menenderi dalam dipat di sebahanian kelipangkapan di sebi bahanpakel Makalan di sebahan di Anthiri di sebih dan Ari sebahan dan di sebahan di sebahan di sebahan di sebahan di sebahan di sebahan di sebah
lequest Taken	Ву					
vailable for Re	pair No	ow? Ø Yes			Date Available	
roblem Descri		There is a lack of drainage sethe intersection of Lateral 2 for so years the Lateral 2 tile effectively farm the area it is were dug by the landowners water just sits in said holes were dug to the said holes were dug to the said holes were dug to the landowners water just sits in said holes were dug to the landowners were greater to the la	and the main has lacked el supposed to in sections 3	tile. Last three nough drainage drain. Pot-hole 4 and 35. and	s	
						1
		Also, there is a broken intak D41 in section 35	e where Later	ral 2 intersects		
epair labor, ma		D41 in section 35		ral 2 intersects		
	aterials	D41 in section 35				
otential Wetla	aterials	D41 in section 35 and equipment				
epair labor, ma otential Wetlar epaired By: ate:	aterials	D41 in section 35 and equipment				
otential Wetlai epaired By: ate:	aterials nds?	D41 in section 35 and equipment	Hardin C	□No-Repair and	maintain tile	
otential Wetlar epaired By: ate:	nds?	and equipment Yes-Repair existing tile only for services to:	Hardin C Attn: Tin	□No-Repair and	maintain tile	
otential Wetlar epaired By: ate: ease send stat	nds? ement	and equipment Yes-Repair existing tile only for services to:	Hardin C Attn: Tin	Ounty Auditor's Of a Schlemme	maintain tile	
otential Wetlandepaired By: ate: ease send stat	nds? ement	and equipment Yes-Repair existing tile only for services to:	Hardin C Attn: Tin 1215 Edg	Ounty Auditor's Of a Schlemme	maintain tile	For Office Use Oni







Drainage District:

#14 Main and Lateral 2

Investigation and Repair Summary:

- Per the earlier recommendations and authorization of the previous Investigation Summary, inspected the Main Tile and Lateral 2 Tile in the NE¼ of Section 34 and NW¼ of Section 35, Township 88 North, Range 22 West.
- Used beehive intake located approximately 300 ft west of County Highway S27 and in the south ditch of County Highway D41, inserted tile locator and hit obstruction approximately 180 ft downstream from said intake.
 Excavated hole at said obstruction and found nothing, water was flowing good. Drainage problem is farther upstream from beehive intake.
- Excavated on Lateral 2 Tile where the Iowa Rural Water Associations (IRWA) watermain crosses drainage
 district tile approximately 400 ft west of County Highway S27 on the north side of County Highway D41. Found
 14" VCP flowing with no obstructions. However, watermain only clears the Lateral 2 Tile by approximately 1/4
 feet. Repaired tile with 15" DW HDPE and concrete collars. Drainage problem is farther upstream.
- Visually observed standing water on the east side County Highway S27 approximately 330 ft south of County Highway D41. Excavated a hole on west side of County Highway S27, found Lateral 2 Tile 4" SW HDPE tile to inspect condition of tile and water started surcharging into hole. Problem is farther downstream. Repaired tile with 2 HDPE couplers.
- Found Lateral 2 Tile on the south side of County Highway D41 at approximately 32 ft from the centerline of said County Highway D41. Removed section of 8" VCP Lateral 2 tile, used push tile locator to locate tile. Hit obstruction approximately 21 ft upstream from inspection hole. CCTV upstream from inspection hole and found two 5" HDPE private laterals directly across from each other protruding into Lateral 2 Tile 19 ft from said inspection hole. The private laterals are completely blocking the flow in the Lateral 2 Tile. Permanently repaired private tile connections to Lateral 2 tile with two 5"x8"x8" HDPE tees, one 4"x5"x5" HDPE tee, 3 HDPE couplers of varies sizes, 4" SW HDPE, 5" SW HDPE, and 8" DW HDPE. Rock bedding was used and concrete collars at all connections.
- Also, CCTV downstream from inspection hole on south side of County Highway D41 for approximately 70 ft to the Lateral 2 Tile connection with the Main Tile. Lateral 2 Tile appears to be in adequate physical condition.
- Inspected beehive intake approximately 540 ft east of County Highways S27 and on the south side of County Highway D41. Intake appears to be near the end of Lateral 2 Tile and has a sinkhole on the east side between intake and Lateral 2 tile. Excavated at sinkhole and found 6" VCP tile from intake to 6" HDPE tee on Lateral 2 tile. VCP tile connection with Lateral 2 Tile appears to be damaged. Replaced damaged VCP tile connection tile with 6" SW HDPE tile and concrete collars at both ends.
- There also appears to be another sinkhole by County Highway D41, but it appears to be caused by the 18" RCP culvert under the road.
- Also, the hickenbottom intake on the north side of County Highway D41 at approximately 375 ft from County Highway S27 appears to be full of dirt/debris and was not repaired at this time.
- After all repairs where done, the water on the east side of County Highway S27 appears to have down gone now that the restriction has been removed.



Contractor Time and Materials (spent while CGA was on-site):

See attached Tabulated Contractor Time and Materials sheet.

Additional Actions Recommended:

- 1. Verify that contractor performed fine grading and seeding of the south and north ditch of County Highway D41, the west ditch of County Highway S27, and wetland area that was disturbed by theses repairs.
- 2. Inform Secondary Roads that the hickenbottom intake on the north side of County Highway D47 may need to be repaired as it currently has dirt/ debris in it.
- 3. Inform Secondary Roads that the sink hole over the 18" Culver needs repaired.
- 4. If desired by the District Trustees, inform IRUA that their watermain appears not to meet the original permit requirements.
- 5. As noted on the Tabulated Contractor Time and Materials, Crop damage was incurred. It is recommended that the District Trustees pay any damage claim brought forth.



Tabulated Contractor Time and Materials

Date	Totals	7/7/2020	7/8/2020	7/9/2020	7/13/2020
Workman (hrs)	82 2/3	20	21 3/4	36 1/4	4 2/3
Mini Excavator (hrs)	25 1/3	61/3	7	6	m
Skidloader (hrs)	56	6 1/3	7 3/4	6	3
CCTV inpection (ft.)	06		06		
4" Single Wall HDPE Tile (ft.)	16 2/5			16 2/5	
5" Single Wall HDPE Tile (ft.)	8 2/3			8 2/3	
6" Single Wall HDPE Tile (ft.)	2 2/5				2 2/5
8" Dual Wall HDPE Tile (ft.)	7 1/2			7 1/2	
15" Dual Wall HDPE Tile (ft.)	2 3/5			2 3/5	
4"x5"x5" HDPE Tee (ea.)	1			1	
5"X8"x8" HDPE Tee (ea.)	2			2	
4" Coupler (ea.)	8			3	
5" Coupler (ea.)	2			2	
6" Coupler (ea.)	1				1
Rock Bedding	Yes				
Concrete Collars	Yes				
Rock Bedding	Yes				
Crop Damage (ac.)	1/2			1/2	



Tabulated Defects

		GPS #254	GPS #255	GPS #255
	Total	UPSTREAM	DOWNSTREAM	UPSTREAM
Total Length Televised (ft)	69.9	18.5	9.5	41.9
Date:		7/8/2020	7/8/2020	7/8/2020
Top crack (ft)	2.1	0.8	0	1.3
Side crack (ft)	0	0	0	0
Bottom crack (ft)	0	0	0	0
				
Partial or imminent collapse (#)	0	0	0	0
Full collapse (#)	0	0	0	0
Debris (ft)	5	4	0	1
Offset Joint (#)	21	7	3	11
				- 11
Soil/voids visible in offset joint (#)	9	7	2	0
conjugate transfer in criser joint (ii)		,		
Single Wall HDPE (non-deformed) (ft)	1.5	1.5	0	0
single training E (not deformed) (it)	1.5	1.5	0	- 0
Dual Wall HDPE (ft)	o	0		
Dual Wall Hore (It)	<u></u>	U	0	0
CMP (rusty) (ft)	ol			
Civir (fusty) (it)	U]	0	0	0
Holes (non-fixed) (#)		0 1		
notes (nort-fixed) (#)	0	0	0	0
Uplos (firm IV (m)	cl.			
Holes (fixed) (#)	0	0	0	0
Alligator Cracks (ft)	0	0	0	0
Radial Cracks (# of tile)	0	0	0 [0



CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	07/07/2020
PROJECT NUMBER. HARDIN DO WO# 292	DAYS OF WEEK;	SMOWTFS
COUNTY, ROUTE, ROAD: TNTERSECTION OF COMMY	SHEET NO.	i of 4
S-27 & CO HWY DY LOCATION: SEM SEM 27-88-22, NE 4 NE 4 34-88-22, NE 4 NE 4 NE 4 34-88-22, NE 4 NE 4 NE 4 34-88-22, NE 4 NE	WITH LIGHT	
DESCRIPTION OF WORK AND MATERIAL USED FOR E	EACH OPERATION, INCL OBSERVER AND	# 6844 DD14. SURVEY UDING CONTRACTOR SUB
ON SITE, CREW STARTED UN	LOADING EQUIPM	ENT WITH ADMAN
PERRY, & DYLAN ON SITE AND	KOLBELCO SK850	5 MINI EXCAUATE
& CASE TR 340 TRACKED SKI	DLOADER FOR EQ	UIPMENT OBSERVER
SET GPS BASE ON GPS # Z	3 3/4" P IROM R	ERAN OZ'T DEEP
SW CORNER OF FIELD DRIVE IN	SEQUADRANT	OF COHWY D-412
CO HWY S-27.		
3:00 P.M. GPS BASE WAS SET U	WITH OBSERVER	LOOKING OVER
INFORMATION FOR A 6000	PLACE TO STA	RT CHECKING
CREW WAS NOW @ INTERSECTION	N OF COMMYDAL	THE SOUIDMENT
OBSERVER TOLD CREW TO CHECK	WITAKES TOSE	E IF THEY ARE DRUGE
WET & THEN START RUI	NNING LOCATO	R CABLE THROWN
INTAKES TO FIND OBSTRUC	CTION	2
340 P.M. RON VIERKANDT STOPP	ED AND CHECKE	D HOW INVESTIGATION
WAS GOING, OBSERVER TOLD R	ON THAT WE JU	T ARRIVED ON SITE
AND WERE CHECKING WHICH I	NTAKES WEB STE	LL WET THEW TRY
RUNNING LOCATE CABLE D	DOWN INTAKES TO	FIND POSSIBLE
DO STRUCTION)		
3:20 PM. FOUND BEEHIVE INTAK	E IN SOUTH DITE	HOF COHWY D-41
297 EWESTT OF & CO HWY S-27	WITH 6" CLAY TIL	E DUTLET TO WEST
WAS DRY. CREWWILL TRY	RUNNING LOCK	TE CABLE INTO
TILL FROM THIS LOCATION.		
3:30 P.M. OBSERVER CHECKED GPS 1	NTO GES# 21 SUA	MEG MAICK WAIL
FLUSHIN AGE IN COHWY 5-27	ABOUT 2632' ± 500	THOF ZOHWL OHI WITH
BOTH HORIZONTAL AND VERTICAL.	POSITION CHECKI	NE 6000.
3:35 P.M. OBSERVER MONCED A HOLE.	STILL OPEN ON	EAST SIDE OF EAST
ROWFENCE FOR CO HWY, 5-27	322' & SOUTH OF	CO HWY D-41. EXCAVATED
I Certify that the work described in this report was incorporated	into this contract unless oth	erwise noted.
Observer's Signature: Dean Pennson I	Date Prepared	07/07/2020
Reviewed by:	Engineer	
		Date Reviewed

	TION ENGINEERING 'ATION REPORT	DATE:	07/07/2020
PROJECT NUMBER:	HARDIN DO WO# 292	DAYS OF WEEK:	SMOWTFS
COUNTY, ROUTE, RO.	4D STATER SECTION OF CON S-27 & CO HWY DYI	SHEET NO.	
LOCATION: SEM SEM	27-88-22 NE 4 NE 4 34-88	-ZZ, LIGHT W	
DESCRIPTION OF WOR NAME, ITEM NO. AND	K AND MATERIAL USED FO	OR EACH OPERATION.	JOB# 6844 DD14. SURVEY INCLUDING CONTRACTOR SUB WATER SITING IN
HOLE. OB.	SERVER ALSO NOTICE	ED THAT FL OF	F DITCH ON BOTH EAST
& WEST S	IDES OF CO HWY	527 IN SAME	AREA WAS SATURATION
BUT NO U	WATER STANDING I	U DITCH. OBSERV	ER CALLED ADAM
THAT HO	LE THAT SOMEONE	PREVIOUSILY	EXCAVATED HAS
WATER SI	ING IN IT AND BOTH	DITCHES ARE	SATURATED SO
- WOULD	SAY TILE IS PLUGGE	DOWN STREM	m.
3.44 P.M. PICT	URE #404B SEE PICT	URE FOR DETAIL	L5.
3:50 P.M. OBSE	RUER AND LREW S	TARTED PUSHIN	E LOCATE CABLE
THROUGH	BEEHIVE INTAK	E. LOCATE CAR	LE HIT A SPOT WHILE
PUSHING	WITH SOME RESIS	STRWIE BUT PI	WEHEN THROUGH THE
AREA	(6PS# 235 @ 6S.7	OFFSET JOINT). OBSERVER LOCATED
THIS SEC	OT FOR DOCUMENT	ATION, OBSERVE	R CONTINUED TO
PUSH	LOCATE CABLE UNTIL	- IT HIT SOMETI	LING HARD THIS TIME
CABLE	COULD NOT PUSH AN	Y FURTHER DOWNS	TREMA.
5:20 P.M. OBSE	RUER HAD LOCATING	DEVICE HOOKE	DUP AGAIN AND STANTED
TO LOCA	TE TILE IN FIEL	D AND SHOOTING	WITH GPS SINCE
LOCATIA	16 ENDWAS NOT CA	BLE OBSERVER	GUESSED WHERE HEND
was Loc	STED BY SIGNAL :	STRENGTH, OBSER	VER TAPED CABLE AT
INSIDE	BOGS OF INTAKE A	BOUT TOP OF B" CL	AYTILE OUTLES AND
PULLED	CABLE OUT OF TH	LE. OBSERVER	MYED CABLE ALONG
GRAVE	L SHOULDER AND S	HOT LENGTH W	LTH 6PS FROM THPE
TO EN	O OF CABLE. OBSE	RUCK CREATED	A POINT ON POLYLINE
- AT TH	IS FOOTAGE,		
6:00 P.M. CREW	ASKED OBSERVER	WHICH WAY WA	S SHORTER TO GET
our IN	MIELD TO EXCAVAT	B AT OBSTRUCTU	ON. OBSERVER SAID
ALDNG	LOCATES FROM	NROW OF COH	WY 0-41. OBSERVER
	ibed in this report was incorpor		
Observer's Signature:	The state of the s	Date Prepared	
Reviewed by	Dean Penning	Engineer	07/07/2020
		- Lugnicei	Date Reviewed

Users Ryken Standard Forms and Procedures Company Forms Construction Engineering Observation Report (1)

CONSTRUCTION EN OBSERVATION		DATE:	07/07/2020
PROJECT NUMBER: HARDI	00 WO# 292 6844,5/00#14	DAYS OF WEEK:	SMOWTFS
COUNTY, ROUTE, ROAD:	TERSECTION OF COM	THEELING.	
LOCATION: SEN 58 14 27-88-2	2 NE 4 NE 4 34-88- 35-88-27 INVESTIG	ZZ, LIGHT WIND	
DESCRIPTION OF WORK AND I NAME, ITEM NO. AND LOCATION	MATERIAL USED FO	REACH OPERATION, INC POLE ABOVE CON	## 6844 ODI4. SURVEY LUDING CONTRACTOR SUB
SEE WHERE CA	BLE LOCATE EN	OEO. ROW VIERK	ANDT WIREHOU
TOLD CONTRACTO	R HE COULD	MAKE A PATH IN CO.	RW TO FIX THE
SINCE IT NEEDS	TO BE FIXEL	CREW CAMETHA	POLLEH FROM JUM VIERKANDT
DRIVE OFF CO	HWY D-41. 08	SERVER ASKED TH	HE REASON FOR
THIS WAY OF	AMAGED ALO	MORE CROPS W	AS IT WOULD BE
BETTER TO GE	TROCK OUT	TO REPAIR.	
6:30 P.M. CREW ST	HATED EXC	AVATING TO EXP	OSE TILE @
OBSTRUCTION (6	PS#246) 159	INTO PIELD	
7:10 P.M. CREW H	AD TILE E	KPOSED AT POSSI	BLE OBSTRUCTION.
TILE LOOKED 6	OOD UPSTREAM	A AND DOWN STREM	WITH 3"
OF GOOD FLUI	N. TILE LOCAT	E CABLE MUST HI	AVE HIT AN OFFSET SOINT.
7:15 Pm, PICTURE #	4049 &	PICTURE #4	DSD SEE PICTURE FOR DETAIL
7:30 P.M. FINISHE	D REELING	OCATE CABUSE	BACK ONTO REEL.
8:00 PM PERRY AM	ro dy chas a	EFF SITE FOR : D	44.
BIISP, M. OBSERVER	& ADAM PUSH	ED LOCATE CABLE	100" DOWNSTREAM
FROM 6 PS # 247	& 100' UPSTREA	M FROM GPS# 24	& WITH NO OBSTRUCTIONS
SINCE TILE IS F	LOWING GODD TH	EN OBSTRUCTION MA	IST BE FURTHER UPSTREMA
8:20, P.M. ADAM 51	ARTED BY CAVA	TING IN NORTH DITY	MOF COHOLD-41 TO
FIND TILE A	OUTLET WAS	AROUND 6" MICKE	W BOTTOM . ADAM FOUND
			SOLL (BOTTOM OF HICKENBOTTO
BISO P.M. ADMINE	THE FULL OF SOIL	700.	
3:50 P.M. ADAMS	THE EXCAPAINS	MORTILE NEAR W	MITILE CROSSING
4:00 P.M OBSERVER	AND ADAM L	EFT SITE. 18	W @ 8:00 AM. TO CHECK LE BYWHTERMAIN AND THE IN 6000 SHAPE,
GUANTITIES PERRY	2140 - 9 6/3 HOUR 2140 - 8 5/3 HOUR 2140 - 8 5/3 HOUR	KOLBELED SKES C	S MINIEXCAVATOR 6/3 HUDRS TRACKED SKIDLDADER 6/3 HOURS
l Certify that the work described in th	us report was incorpora	ted into this contract unless of	harvitta nata I
and the second s		Date Prepared,	
Reviewed by:	4 Penning		07/07/2020
		Engineer	Date Reviewed

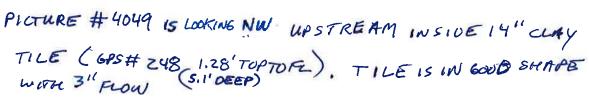
CONSTRUCT OBSERV	MON ENGINEERING ATION REPORT	DATE:	07/07/2020
PROJECT NUMBER:	HARDIN DO WO# Z9Z	DAYS OF WEEK:	SMOWTFS
	AD INTERSECTION OF COM	SHEET NO.	4 OF 4
	Sm77 & CALINE NUI	1 - 5 - 1	TO LOW 90'S SUNNY
FOR PLYGGED TIL	27-88-22 NEW NEW 34-88 WWY 35-88-27 SWUSSTI E DOILY MAIN ORLAT	WITH LE	HTWWOS
DESCRIPTION OF WOR NAME, ITEM NO. AND I	K AND MATERIAL USED FO	OR EACH OPERATION, IN	CLUDING CONTRACTOR/SUB
	CPS Z47 TOP 14" CLAY	.ZY TOPTOPL) 5.1 DEEP	
	THE ESTRELOUNE END COSTE	PETON 7)	
	SAR OR LIFE FOCUSE		
SE# 248 TOP14"CLA	/		N
(5.1° DEEP)	ZHY ES TILE LOC	47E	
DEEP)			
	243 65 7	ILE LOCATE	
	242	- 65 TILE COCATE	
		241 65 TILE LOCKER	
		240 SSTILE LOCATE	
E, E	O EDGE	239 GSTILE LOCATE	
7,60	- C085	238 COTILE LOCATE Q	
	6"CLAYTILE	ourles	
	geraid ful ofsoh	E 6" HUMON BOTTON	STILE LOCATE
	FL c	CHYTILS BROKEN &	
Co	Hwy 0-41 con	PRISTELY FULL OF MUD	BUT KABLE DID FUSH THOUSE
			CAS 284 GS TILE LOCATE &
			GAS 233 CS TILE LOCA TE SOA.
			231 WHEB LOCATE
			297't WEST OF
			254 6 GOHUY 0418
			u ria bethire entare in
Certify that the world door	ibad in this year		SOUTH DITCLE
Observer's Signature:	ibed in this report was incorpor		CAPLET TO
Reviewed by:	Dean Penny	Date Prepared —	07/07/2020
concinent by		Engineer	
			Date Reviewed

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PICTURE # 4048 IS LOOKING NORTH ALONG EAST ROW FENCE BUT & SOUTH OF CO. HWY D-41 SHOWING WATER SIT ING IN HOLE







N

PICTURE # 4050 IS LOOKING NOW DOWN STREAM INSIDE 14" CLAY

(5.1' ± DEEP)

THE (GPS# 247 1.24' TOPTOPL) TILE IN GOODSHAPE



OBSERVAT	N ENGINEERING FION REPORT	DATE:		07/08/2	020
	IARDIN DD WO# 292		[S	MTWI	FS
COUNTY, ROUTE, ROAD	INTERSECTION OF COL	SHEEL NO.		l OF	5
LOCATION: SEK SEK 27-	5-27 & CO HWY DY1 88-22, NE 14 NE 14 34-88 111144 35-88-27 INVEST	LOW 70'S WITH L	IGHT WIR	90's SUNN	
DESCRIPTION OF WORK ANAME, ITEM NO. AND LO	AND MATERIAL USED F	OR EACH OPERATION,	Jos# 68 INCLUDIN	G CONTRACTO	OR/SUB
8:05 A.M. AOAM	CALLED THAT JO	OBSERVER LEF	RURALU	CE FOR JOB TILITIES ASS	STE _
WAS ON SITE	E AND WANTED	TO START DIGGIN	16 FOR T	TILE ARG	SOUSE
SAID 60 A	HEAD SINCE I	AM ABOUT 7 M	INUTES	AWAL F	POM
SITE,				/	019
8:12 A.M. OBSER	VER ARRIVED ON	SITE AND SET	GPS BA	SE AN SPCT	72
3/4 " FRONKS	TRADOIZ' + DEBP SW CO	RNER PLELO DRIVE	W SE OL	ADRAUT A	E
CO Hwy D-	41 & co Hury 5-27.				
8:30 A.M. OBSERVEN	L HAD GPS BASE S.	ET UP AND CHECK	ED INTO	6PC#71 =	
MARK NAIL	FLUSH IN ACC I	V CO HULL 5-27	ABOUT 2	682'+ 8015	U OF
		- LI	Noval -	Soul soul	7 01-
G COHWY D-1	IL WITH BOTH HORIS	CONTAL AND HER	TICAL D		
GOOD D-	HI WATH BOTH HORI	ZONTAL AND VER	TICALP	SITION CHE	KING
6000	II WATH BOTH HORIS	ZONTAL AND VER		×	
8:35 A.M. 08.5ER	JER ARRIVED AT	WATER MAIN!	TILE C	Rossing u	OITH.
8:35 AM. OBSERI ROWVIERKA	VER ARRIVED AT	ZONTAL AND VER WHTER MAIN! TRUM, ADAM, DY	TILE C	ROSSING W ERRU ON S	UTH UTTE
8:35 AM OBSERI ROWNERKA	VER ARRIVED AT WOT, JASON WITH . BELCO SK 85 CS M	WHTER MAIN / I TRUM, ADAM, DY	TLAN, PE	ROSSING W ERRY OW S E TR 340 T	UTH FACKED
8:35 AM OBSERI ROWNERKA AND KOL	VER ARRIVED AT WOT, JASON WITH. BELCO SK 85 CS M	WHTER MAIN! TRUM, ADAM, DY NIWLEXCAVATOR MENT ONSITE.	TLAN, PE 8 CAS CREW	ROSSING W ERRY OW S E TR340 T DAMAGEO	UTH ITE RACKED
8:35 A.M. OB. SERI ROWNERKA AND KOL SKADLOM	VER ARRIVED AT WOT, JASON WITH. BELCO SK 85 CS M LOER FOK EQUIPA	WHTER MAIN! TRUM, ADAM, DY NIWLEXCAVATOR MENT ONSITE.	TLAN, PE 8 CAS CREW	ROSSING W ERRY OW S E TR340 T DAMAGEO	UTH ITE RACKED
ROWNERKA ROWNERKA AND KOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA	VER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS MIDER FOR EQUIPMENT TILE RUNNING POSED	WHTER MAIN/I TRUM, ADAM, DY MINIEXCAVATOR MENTONSITE.	TLE CAN, PE & CAS CREW 10 HAD	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY	UTH ITE RACKED
ROWVIER A AND KOL SKIDLOM AND SIGN STOR ILL STOR	LER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS A LOER FOR EQUIPMENT THE RUNNIA POSED WHITE PARTIES SE SABOVE 8"WATERMANN 1.38"	WHTER MAIN/I TRUM, ADAM, DY MINIEXCAVATOR MENT ONS ITE. 16 SE-NW AN GSTOTOPUM (49° + DREP)	TLAN, PE 8 CAS CREW	ROSSING WERRY OW SE TR 340 TO DAMAGED 14" CLAY	UTH ITE RACKED
ROWNERKA ROWNERKA AND KOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA AND BOL SKADLOA	LER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS A LOER FOR EQUIPMENT THE RUNNIA POSED WHITE PARTIES SE SABOVE 8"WATERMANN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° + DEEP) TOPIY"CUNY 1144,711 GOUSDOETO)	TLE CAN, PE & CAS CREW 10 HAD	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY	PACKED RACKED RACKED TOP WM
GOOD 8:35 AIM, OBSERI ROW WERKA AND KOL SKIDLOM SKIDLOM AW 8" CL "137" PUT SHOPT TO CUTTON INTO 101 8" WM O TOP CLAY THE CTOP CLAY THE TOP TOP CLAY THE	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS A LOER FOK EQUIP IN THE RUNNIA IN THE RUNNIA ISS' ES ABOVE 8" WATER MAIN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375	PARTE TRACKED RANGE TO THE WAY (6,5'±)
GOOD 8:35 AIM, OBSERI ROW WERKA AND KOL SKIDLOM SKIDLOM AW 8" CL "137" PUT SHOPT TO CUTTON INTO 101 8" WM O TOP CLAY THE CTOP CLAY THE TOP TOP CLAY THE	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS A LOER FOK EQUIP IN THE RUNNIA IN THE RUNNIA ISS' ES ABOVE 8" WATER MAIN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° + DEEP) TOPIY"CUNY 1144,711 GOUSDOETO)	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375 1143,67'	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AIM, OBSERI ROW WERKA AND KOL SKADLOA AW 8" CL STATION TO CUTTON 8" WM O TOP CLAY TILE 12: TOP TOPE 3.7'2 OGEP) 251 TOP 8" LINY TILE (0:15" TOP TOPE)	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA "X POSED 25' WALL THEREISES 13 ES ABOVE 8" WATERMAIN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AIM, OBSERI ROW WERKA AND KOL SKIDLOM SKIDLOM AW 8" CL "137" PUT SHOPT TO CUTTON INTO 101 8" WM O TOP CLAY THE CTOP CLAY THE TOP TOP CLAY THE	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS A LOER FOK EQUIP IN THE RUNNIA IN THE RUNNIA ISS' ES ABOVE 8" WATER MAIN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375 1143,67'	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AIM, OBSERI ROW VIERKA AND KOL SKIDLON SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8"	JER ARRIVED AT WITH BOTH HORIS JER ARRIVED AT WITH JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA (X POSED) 25' WALL THEIR MISS ST 45 ABOVE 8" WATERMAIN 1.38" (252) H ON TO SEE N WHO SEE N	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375 1143,67'	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AIM, OBSERI ROW WERKA AND KOL SKADLOA AW 8" CL STATION TO CUTTON 8" WM O TOP CLAY TILE 12: TOP TOPE 3.7'2 OGEP) 251 TOP 8" LINY TILE (0:15" TOP TOPE)	JER ARRIVED AT ANDT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA (XPOSED) 25' WALL THEIR CONSIST 3 ES ABOVE 8" WATER MAIN 1.38"	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375 1143,67'	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AIM, OBSERI ROW VIERKA AND KOL SKIDLON SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8" CL SKIDLON AW 8"	JER ARRIVED AT WITH BOTH HORIS JER ARRIVED AT WITH JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA (X POSED) 25' WALL THEIR MISS ST 45 ABOVE 8" WATERMAIN 1.38" (252) H ON TO SEE N WHO SEE N	ZONTAL AND VER WATER MAIN/ TRUA, ADAM, DY MENT ONS ITE. 16 SE-NW AN GOTOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (MOSTOTOPUM) (MOSTOTOPUM	LAN, PE & CAS CREW 10 HAD \$3) 65	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -11375 1143,67'	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AM OBSERI ROW VIER KA AND KOL SKADLOM SKADLOM AN 8" CL STATION TO CHIPTED IN 10" + 0: 8" WM 0 TOP CLAY TILE 251 TOP 8" CLMY TILE (0.15 TOP 10%) (3.7'4 OBEP)	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA KPOSED WOTERMIN 1.38' 258 ED GE FIELD	WHTER MAIN/I TRUA, ADAM, DY ALWLEXCAVATOR MENT ONS ITE. 16 SE-NW AN 6STOTOPHM (4.9° 1 DEEP) TOPIY"CLAV 1144.71 (OUTSIDE TO) -1.38 BOTTOM 14"CLAY 1143.33	LAN, PE & CAS CREW 10 HAD 53) 65 TOP 8" O. Z6' 6 TOP 8"	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -1.3:7" 1143,67' CLEARANCE	RACKED RACKED RACKED RACKED RETURN (6.5½) RETURN
GOOD 8:35 AM OBSERI ROW VIER KA AND KOL SKADLOM AW 8" CL SKADLOM	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA KPOSED WOTHERWESS GESASOVE B"WATERMIN 1.38" 238 ED GE FIELD ed in this report was incorporated	WATER MAIN/I TRUA, ADAM, DY AIWIEXCAVATOR MENT ONS ITE. 16 SE-NW AN 65TOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (OUTSIDE TO) -1.38 BOSTOM 14"CLAY 1143.33	CREW LAN, PE 8. CAS CREW 10. HIND 53. 65 TOP8" TOP8"	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -1137 1143,67' CLEARANCE WM & BOTTOMILL	PACKED RACKED RACKED RACKED RACKED RACKED RETUREN CAS'E BETWEEN CLAYTILE
GOOD 8:35 AIM OB SERI ROW VIER KA AND KOL SKIDLOM AW 8" CL SKIDL	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA KPOSED WOTERMIN 1.38' 258 ED GE FIELD	WHTER MAIN/I TRUA, ADAM, DY ALWLEXCAVATOR MENT ONS ITE. 16 SE-NW AN 6STOTOPHM (4.9° 1 DEEP) TOPIY"CLAV 1144.71 (OUTSIDE TO) -1.38 BOTTOM 14"CLAY 1143.33	CREW LAN, PE 8. CAS CREW 10. HIND 53. 65 TOP8" TOP8"	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -1137 1143,67' CLEARANCE WM & BOTTOMILL	PACKED RACKED RACKED RACKED RACKED RACKED RETUREN CAS'E BETWEEN CLAYTILE
GOOD 8:35 AM OBSERI ROW VIER KA AND KOL SKADLOM AW 8" CL SKADLOM	JER ARRIVED AT WOT, JASON WITH BELCO SK 85 CS M DER FOK EQUIP MY TILE RUNNIA KPOSED WOTHERWESS GESASOVE B"WATERMIN 1.38" 238 ED GE FIELD ed in this report was incorporated	WATER MAIN/I TRUA, ADAM, DY AIWIEXCAVATOR MENT ONS ITE. 16 SE-NW AN 65TOTOPUM (49° ± DEEP) TOPIY"CLAY 1144,71 (OUTSIDE TO) -1.38 BOSTOM 14"CLAY 1143.33	CREW LAN, PE 8. CAS CREW 10. HIND 53. 65 TOP8" TOP8"	ROSSING WERRY OWS ETR3407 DAMAGED 14" CLAY 1144.44 -1.3:7" 1143,67' CLEARANCE	PACKED RACKED RACKED RACKED RACKED RACKED RETUREN CAS'E BETWEEN CLAYTILE

	TION ENGINEERING 'ATION REPORT	DATE:	07/08/2020
PROJECT NUMBER:	HARDIN DO WO # 252 6844.5 / DO#14	DAYS OF WEEK	SMTWTFS
COUNTY, ROUTE, RO.	AD FATERS ECTION OF COH	SHEET NO.	2 OF 5
1	5-27 & COHWY DY 27-88-22, NEW NEY JY-88- WW W 35-88-22 INVESTIGAT BO TILE DOLY MANN OR LAT	LOW 70'S TO WINDS	MID 96'S SUNNY WITH CHET
DESCRIPTION OF WOR NAME, ITEM NO. AND	K AND MATERIAL USED FOR	EACH OPERATION	JOB# 6844 DDI4, SURVEY, INCLUDING CONTRACTOR/SUB
& PILTURE#	4053 SEE PICTURES	FOR DETAILS	8:52 A.M. PICTURE # 405Z
9:00 AM. OBSE	EVER THOUGHTS ARE	HOLE SHOW	LO HAVE FILLED UP
WITH	WATER IF TILE WAS PL	466EO DOWNSTR	EAM FURTHER & NW
HOLE	WHERE TILE E	KPOSED FLOW !	S GOOD. OBSERVER WILL
CHEC	K BEENIVEINTAKE	IN DITCH NO	THOF HWYD-41 & WEST
of s	-27, THIS BEEN!	UE INTAKE	OUTLET TILE TO SOUTH WAS
DRY . OBS	BRUER WILL HAV	E CREW EX	CAVATE & EXPOSE
TIG	E WEST DEBEEHI	VE INTAKE SO	LOCATO CARISCANI
BE	RANUPSTREAMIN	TILE TOSE	TO CHECK IF PLUGGED
9:56 A.M. PICT	RE# 4054 SEE PIC	TURE FOR DET	78// C
10:15 A.M. LA	TERAL 4 2 8" C	AL TILLE	VAS EL PASED MILL
OF BEI	EMINE INTAKE WITH	H & SELTION C	ESTA E STATE
10:16 AM. PECT	URE # 4055 & PICTU	URR # 4056 SI	E PICTURE FOR DETAILS.
10:25 A.M. CRE	W RAN LOCATE COL	OLE LIACTOR	AM INSIDE 8" CLAY TILE
FROM	GPS # 2 CU ILWYU I	T HE COURT	HING IN TILE @ 21.34
CABLE	15 UNABLE TO PU	SULTURALIE	TING IN TILE (& ZII)
10135 A.M.	CA FILL WAS USED	M IMROUGH	THIS COCATION.
330'+	COUNTY OF G CON	TO WE	ST DITCH OF COHWYSZ7
	SOUTH OF & COMMY	DY TO CHE	CK CONDITION & FLOW
10.00 10 10	LE DEFORE EXCAU	ATTING IN FI	ELD IN CASE JUST A JOINT
7. 6.4	D COUNTRY EQUIPM	BWT ONSIT	E & OBSERVER TRYING
TO KU	LOCATOR CABLET	HROUGH JATA	KE TO FIND OBSTRUCTION
1000	TENTE ME, OBSER	VER IS UNABI	LE TO MAKE BEND WITH
LOCATI	CABLE INTO LATER	AL HZ. CREU	WILL EX CAVATE TO
	LATERAL #2	to Rupe Locat	E CABLE DOWNSTREAM
	LUG. ADAM		
11.03 AIM PICTU	REI H 4058 SEE PLUTU	CEE FOR DETAI	LS,
Certify that the work desc	ribed in this report was incorporate	ed into this contract un	less otherwise noted
Observer's Signature:	Deary Penning	Date Prepared	1/08/2020
Reviewed by:	wery verning	Engineer	11001000
			Date Reviewed

	CTION ENGINEERING RVATION REPORT	DATE:	07/08/2020
PROJECT NUMBER:	HARDIN DO WOH 292 6844.5/DO#14	DAYS OF WEEK:	SMTWTFS
COUNTY, ROUTE, R	DAD ENTERSECTION OF CO	HWY SHEET NO.	3 OF 5
LOCATION: SEX SEX	5-27 8 COHWY DY 1 27-88-22, NEW NE YW 34-86 NW W 35-88-22 INVESTIGATION OR LINE	8-24 WINDS	30's sunny with cuttor
DESCRIPTION OF WO NAME, ITEM NO. ANI	ORK AND MATERIAL USED FO	OR EACH OPERATION, INC BEFORE CREW COU	Jos# 6844 DOI4. SURVEY LUDING CONTRACTOR/SUB
TILE WAT	ER WAS SQUIRTING	OUTOFCRACK INSOIL &	ELLO CET DOWN TO
SREW DEC	IDED TO ENECK TIL	E MN WEST SI	FAR HOLE UP
TILE CRO.	SSIN60	277 310	S OF WATERMANY
11:26 AM PL	TURE # 4059 SEE P	CTURE FOR DETA	11 C
11:35 AM	REW CUT A 4"	HOPE SW PERF 7	TILE RUMBILALL ALMS
IN FIE	ELD. BEFORE CRE	EW REACHED THE	LUATER LUAG
saulk.	TING OUT OF GROWN	VD-	
11145 A.M D	ME TO WATER PRE	SSURE AT THIS LO	CATION, RESTRICTION
IS Fur	THER DOWN STREET	M AND CREW WI	LL EXCAUATE
ATLO	CATION WHERE CAL	BLE COULD NOT	PUSH THROUGH
21.3	SE OF BEEHIVE	INTAKE IN SOUTH	DUTCH OF CO HOWL
D-4	. ADAM HAD PAU	IL SCHEDULED T	O COME TPI BURE
ILB	TO PIN POINT ISS	UE AT 1:00 P.M	SIAME AN ISSUE E. W VST
JIIV Fin DE	SERVER MARKED	OUT EXACT LOCATION	V DE PASCIAL ET A A STRUCTUAL
INT	LE KOW LEFT	SITE AND ASKED	TO LET HUM KAINUI
m Isa	V PAUL WASON S	ATE TO TELEV	ISE TILE
12:05 P.M. C	REW ROLLED ONE OF	TRACKS OFF EXCAL	ATOR HEADING BACK
_ TO &	KCAVATE AT POSSIA	LE OBSTRUCTIONS	
12(15 P.M. A	DAM LEFT SITE TO	TOGET A BAR TOP	IELP PUTTRACK BACK
ON.	PORKY AND DYLAND	EFT FOR LUNCH.	OBSERVER SHOT
LOCA	TION OF POSSIBLED	BSTRUCTION	
12:45 P.M.	YLAN AND PERRY BI	ACKONSITE FR	OM LUNCH
12.30 17.11	PAUL ON SITE WITH	CAMERA EQUIPMEN	TOTELEVISE
UPST	REAM AND DOWNSTA	REAM FROM_ GPS #	254 & #255 WEST
OFO	BEHIVE INTHKE IN SO	WITH DITCH OF COHWY !	41. CREW WAS UNABLE
TO	TO EQUIPMENT ISSUE	BECAUNTED & EXPOS	ED BEFORE PAUL ARRIVED
certify that the work des	cribed in this report was incorpor	ated into this contract unless o	therwise noted.
Observer's Signature:	Dean Penny	Date Prepared:	7/08/2020
Reviewed by		Engineer	
			Date Reviewed

^{1&#}x27;sers/Ryken Standard Forms and Procedures/Company Forms/Construction Engineering Observation Report (1)

	CTION ENGINEERING VATION REPORT	DATE:	07/08/2020			
PROJECT NUMBER:	HAROW DO WO # 292 6844.5 / DO#14	DAYS OF WEEK:	SMTWTFS			
COUNTY, ROUTE, RO	AD FATERS ECTION OF COL	SHEET NO.	4 . of 5			
	5-27 & COHWY DY/ 27-88-22, NEW NEY/ 34-88 NW W 35-88-22 INVESTIGA GED THE DOLY MAIN OR LAT	LOW 70'S TO MID 90	S SUNNY WITH CLEAT			
DESCRIPTION OF WOR	RK AND MATERIAL USED FOR	REACH OPERATION, INCLU	JOING CONTRACTOR/SUB			
THUE, ITEM NO. AND	LOCATION 1:13 P.M.	PAUL HAD GENER	ROTOR STARTED			
TO START	TELE VISING TILE U	PSTREAM.				
1:15 P.M. ADI	AM BACKON SITE P	UTTING TRACK BA	CK ON MINI EXCAUNTOR			
1:20 P.M. PA	UL TELEVISING UPST	REAM FROM 6PS	# 254 (FIELD DESERVEDAN			
1.0'	CAMERA BACK TIRE D	EWD OF B" CLAUTH	5-			
19.0 E	NO TELEVISE 5" HOP	E SW PERF TILE FA	DAM LIFETO BONNEAST			
THAT 7	TEIN AT SAME LOCA	TIDAL WITH CLAUTIL	Contract the Proment			
& 7	UP APPEARS TOPS CA	VIAND AND THE	DES CRACKED			
1:33 RMA PICTUR	EN 4060 SEE PILTUR	5 End DETHUC	MEEBO & HOUSE			
1:45 P.M. CREU	U HAD TRACKS BACK	MAA ALLES				
1155 PM PAUL	HAD CAMBRA TRAC	ON MINIEXCAV	ATOR			
HISS P.M CAR	THE LINE CTURE	TOR BACK OUT OF	TILE.			
71.00 P. M. PAU	W WAS STARTING	TO EXCAVATE TO	REMOVE OBSTRUCTION			
COUPLING PAUL TELEVISING DOWNSTREAM FROM GPS # 255 (FIELD) ARSERVANDA						
10'01		SIRE AM FROM 6	PS IF 255 (FIELD OBSERVATIO			
1.0 04	WERA BACK OF TIRE @	END OF 8" CLAYTIL	PS ## 255 (FIELD OBSERVATIO			
10.1'	MERA BACK OF TIRE @	END OF 8" CLAYTIL	PS ## 255 (FIELD OBSERVATIO			
10.1'	MERA BACK OF TIRE @	ZOUGE B" CLAYTIL	PS ## 255 (FIELD OBSERVATIO			
10.1'	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT Q CHUNK OF TILE 10	ZOGLOCK	<u>E</u>			
10.1° 84.5 Z!16P.M. 69.8°	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT @ CHUNK OF TILE 10 TEE. END CAMER	ZOGLOCK VFL A. PAUL ENDED CAN	MERA THINKING			
10.1' 84.5 Z:16P.M. 69.8'	MERA BACK OF TIRE @ LATERAL LEFT LATERAL RIGHT @ CHUNK OF TILE ID TEE, END CAMER WENT MAY FURTHER	ZOGLOCK V FL A. PAUL ENDED CAN CHAMERA WOULD GE	MERA THINKING			
10.1' 84.5 Z:16P.M. 69.8' IF HE 8"TO	MERA BACK OF TIRE @ LATERAL LEFT LATERAL RIGHT @ CHUNK OF TILE ID TEE, END CAMER WENT ANY FURTHER 14" CONNECTION IN	END OF 8" CLAYTIL ZOGLOCK V FL A. PAUL ENDED CAN CHAMERA WOULD GE 6000 CONDUTION WIT	MERA THINKING T STUCK IN CONNECTION THE GOOD FLOW			
10.1' 84.5 Z!16P.M. 69.8' IF HE 8" TO	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT @ CHUNK OF TILE ID TEE. END CAMER WENT HAY FURTHER 14" CONNECTION IN	END OF 8" CLAYTIL ZOCLOCK V FL A. PAUL ENDED CAN CHAMERA WOULD GE GOOD CONDITION WITH SRVER LOCATED	MERA THINKING T STUCK IN CONNECTION THE GOOD FLOW APPROXIMATE LOCATION			
10.1' 84.5 Z!16P.M. 69.8' IF HE 8" TO 1.0 M.	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT Q CHUNK OF TILE IN TEE. END CAMBR WENT HAY FURTHER 14" CONNECTION IN MIN, PAUL AND OBSI 14IN / LAT Z CONNE	END OF 8" CLAYTIL ZOCIOCK V FL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH SRVER LOCATED	MERA THINKING T STUCK IN CONNECTIONS THE GOOD FLOW APPROXIMATE LOWNON			
10.1' 84.5 Z!16P.M. 69.8' IF HE 8" TO 1.0 M.	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT Q CHUNK OF TILE IN TEE. END CAMBR WENT HAY FURTHER 14" CONNECTION IN MIN, PAUL AND OBSI 14IN / LAT Z CONNE	END OF 8" CLAYTIL ZOCIOCK V FL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH SRVER LOCATED	MERA THINKING T STUCK IN CONNECTIONS THE GOOD FLOW APPROXIMATE LOWNON			
10.1' 54.5 Z:16P.M. 69.8' IF HE 8" TO 1 A M. 2:20 P.M. PAL	MERA BACK OF TIRE Q LATERAL LEFT LATERAL RIGHT @ CHUNK OF TILE ID TEE, END CAMER WENT HAY FURTHER 14" CONNECTION IN MAIN, PAUL AND OBSI MAIN/LATZ CONNE US WAS BACKING CA	END OF 8" CLAYTIL ZOCLOCK V FL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH ERVER LOCATED ECTION MYD SHOT MERA OUT AND PH	MERA THINKING T STUCK IN CONNECTIONS THE GOOD FLOW APPROXIMATE LOCATION WITH GPS.			
10.1' 84.5 2:16P.M. 69.8' IF HE 8" TO 1M M OF N 2:20 P.M. PAL 2:39 P.M. PICTU	MERA BACK OF TIRE Q LATERAL RIGHT @ LATERAL RIGHT @ CHUNK OF TILE ID TEE, END CAMER WENT HAY FURTHER 14" CONNECTION IN MAIN, PAUL AND DESC MAIN / LAT Z CONNE VE WAS BACKING CAL VIEW 45 BACKING CAL	END OF 8" CLAYTIL ZOCLOCK WEL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH EXTER LOCATED ECTION AND SHOT MARKA OUT AND PHONE 1062 & 2:41PM. PICTO	MERA THINKING T STUCK IN CONNECTIONS THE GOOD FLOW APPROXIMATE LOCATION WITH GPS.			
2:16P.M. 69.8' IF HE 8" TO 10.1' 2:16P.M. 69.8' IF HE 2:20 P.M. PAL 2:39 P.M. PICTU 3:01 P.M. PICTU	MERA BACK OF TIRE QUATERAL LEFT LATERAL RIGHT Q CHUNK OF TILE IN TEE. END CAMBR WENT BAY FURTHER 14" CONNECTION IN MAIN, PAUL AND OBSI 14 IN / LAT Z CONNE UL WAS BACKING CAM JURE # 4061, PICTURE # 5 TURE # 4065 SEE PICTO	END OF 8" CLAYTIL ZOCLOCK V FL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH EXTER LOCATED ECTION AND SHOT IN MERA OUT AND PU LOCATE FOR DETAILS	MERA THINKING T STUCK IN CONNECTION TH GOOD FLOW APPROXIMATE LOWNON WITH GPS. ITTING AWAY EGHINASUT IRE # 4064 SEE PICTURS FOR DETAILS			
2:16P.M. 69.8' IF HE 8"TO 10.1' 2:16P.M. 69.8' IF HE 8"TO 10.1' 2:16P.M. 69.8' 2:20 P.M. PAL 2:39P.M. PICTU 3:01 P.M. PICTU 3:10 P.M. PAL	MERA BACK OF TIRE QUENTERAL LEFT LATERAL RIGHT Q CHUNK OF TILE IN TEE. END CAMBR WENT BAY FURTHER 14" CONNECTION IN AIN PAUL AND OBSE 14 W AS BACKING CAM IRE# 4061, PICTURE # 5 TURE# 4065 SEE PICTURE IL WAS WONDERING IF	END OF 8" CLAYTIL ZOCLOCK V FL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH EXTER LOCATED ECTION MYD SHOT MERA OUT AND PH 1062 & 2:41PM. PICTURE CRE FOR DETTILS ANYTHING ELSE NEE	MERA THINKING T STUCK IN CONNECTION TH GOOD FLOW APPROXIMATE LOWNON WITH GPS. ITTING AWAY EGHIPMENT IRE # 4064 SEE PICTURE FOR DETTHIS			
10.1' 84.5 Z!16P.M. 69.8' IF HE 8" TO 1M M OF M 2:39 P.M. PICTU 3:01 P.M. PICTU 3:10 P.M. PICTU S#10 TO TEL	MERA BACK OF TIRE Q LATERAL RIGHT Q LATERAL RIGHT Q LAUNK OF TILE IN TEE. END CAMER WENT HAY FURTHER 14" CONNECTION IN MAIN, PAUL AND DESI MAIN, PAUL AND DESI MAIN / LAT Z. CONNO WE WAS BACKING CA ME # 4061, PICTURE # 5 TURE # 4065, SEE PICTURE TURE # 4065 SEE PICTURE IL WAS WONDERING IF SINCE WE HAVE BLOG EVISE ANYTHING MORE.	END OF 8" CLAYTIL ZOCLOCK VEL A. PAUL ENDED CA GAMERA WOULD GE GOOD CONDITION WITH EXCER LO CATED ECTION AND SHOT MERA OUT AND PH 1062 & 2:41PM. PICTA ARE FOR DETAILS, ANYTHING ELSE NEE KAGE ISSUE RESOLUTION TO THE PAUL LEET SITE EDO	T STUCK IN CONNECTION THE GOOD FLOW APPROXIMATE LOWNON WITH GPS. STUCK IN CONNECTION THE GOOD FLOW APPROXIMATE LOWNON WITH GPS. STUCK IN CONNECTION APPROXIMATE LOWNON WITH GPS. STUCK IN CONNECTION THE # 4064 SEE PICTURE FOR DETAILS EDS TELEVISED, LEE LED THERE IS NO REMSON			
10.1' 84.5 2:16P.M. 69.8' IF HE 8" TO 1M M OF P 2:20 P.M. PAU 2:39 P.M. PICTU 3:01 P.M. PICTU 3:10 P.M. PAU SAID TO TEL	MERA BACK OF TIRE QUENTERAL LEFT LATERAL RIGHT Q CHUNK OF TILE IN TEE. END CAMBR WENT BAY FURTHER 14" CONNECTION IN AIN PAUL AND OBSE 14 W AS BACKING CAM IRE# 4061, PICTURE # 5 TURE# 4065 SEE PICTURE IL WAS WONDERING IF	END OF 8" CLAYTIL ZOCLOCK VEL A. PAUL ENDED CA GAMERA WOULD GE GOOD CONDITION WITH EXCER LO CATED ECTION AND SHOT MERA OUT AND PH 1062 & 2:41PM. PICTA ARE FOR DETAILS, ANYTHING ELSE NEE KAGE ISSUE RESOLUTION TO THE PAUL LEET SITE EDO	T STUCK IN CONNECTION T STUCK IN CONNECTION TH GOOD FLOW APPROXIMATE LOCATION WITH GPS. ITTING AWAY EGNIMENT RE # 4064 SEE PICTURE FOR DETTILS EDS TELEVISED, LEE JED THERE IS NO REMON DAY, PAUL WILL DROP OFF TELEVISED			
2:16P.M. 69.8' IF HE 8" TO 1M M 2:20 P.M. PAL 2:39 P.M. PICT 3:10 P.M. PICT 3:10 P.M. PAL Certify that the work desc Observer's Signature:	MERA BACK OF TIRE Q LATERAL RIGHT & LATERAL RIGHT & CHUNK OF TILE IN TEE, END CAMER WENT HAY FURTHER 14" CONNECTION IN MAIN, PAUL AND DESI MAIN, PAUL AND DESI MAIN / LAT Z CONNE VIE WAS BACKING CAL MERE # 4061, PICTURE # 5 TURE # 4065, SEE PICTURE IL WAS DONDERING IF I SINCE WE HAVE BLOW EVISE ANYTHING MORE, WITCHED IN TIBED IN THE PROPERTY.	END OF 8" CLAYTIL ZOCLOCK VEL A. PAUL ENDED CA GAMERA WOULD GE GOOD CONDITION WITH EXCER LO CATED ECTION AND SHOT MERA OUT AND PH 1062 & 2:41PM. PICTA ARE FOR DETAILS, ANYTHING ELSE NEE KAGE ISSUE RESOLUTION TO THE PAUL LEET SITE EDO	T STUCK IN CONNECTIONS T STUCK IN CONNECTIONS TH GOOD FLOW APPROXIMATE LOCATION WITH GPS. ITTING A WAY EGHIPMENT IRE # 4064 SEE PICTURE FOR DETAILS EDS TELEVISED, LEE URD THERE IS NO REMON DAY, PAUL WILL DROP TWISE NOTE OFF TELEVISED VIOCO AFCOUR.			
10.1' 84.5 2:16P.M. 69.8' IF HE 8" TO 1M M OF P 2:20 P.M. PAU 2:39 P.M. PICTU 3:01 P.M. PICTU 3:10 P.M. PAU SAID TO TEL	MERA BACK OF TIRE Q LATERAL RIGHT Q LATERAL RIGHT Q LAUNK OF TILE IN TEE. END CAMER WENT HAY FURTHER 14" CONNECTION IN MAIN, PAUL AND DESI MAIN, PAUL AND DESI MAIN / LAT Z. CONNO WE WAS BACKING CA ME # 4061, PICTURE # 5 TURE # 4065, SEE PICTURE TURE # 4065 SEE PICTURE IL WAS WONDERING IF SINCE WE HAVE BLOG EVISE ANYTHING MORE.	END OF 8" CLAYTIL ZOCLOCK WEL A. PAUL ENDED CAN COMMERA WOULD GE GOOD CONDITION WITH EXTER LOCATED ECTION AND SHOT MARKA OUT AND PUT MERA OUT AND PUT MERA OUT AND PUT MERE FOR DETHICS ANYTHING ELSE NEW CHALE ISSUE RESOLUTION CHALE IS	T STUCK IN CONNECTION T STUCK IN CONNECTION TH GOOD FLOW APPROXIMATE LOCATION WITH GPS. ITTING AWAY EGNIMENT RE # 4064 SEE PICTURE FOR DETTILS EDS TELEVISED, LEE JED THERE IS NO REMON DAY, PAUL WILL DROP OFF TELEVISED			

CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	07/08/2020					
PROJECT NUMBER:	DAYS OF WEEK:	SMTOTFS					
COUNTY, ROUTE, ROAD: - SATERSECTION OF COMMY	SHEET NO.	5 OF 5					
LOCATION: SEY4 58 1/4 27-88-22, NEY4NEX, 134-88-2	WINUS	MID 90'S SUNWY WITH					
DESCRIPTION OF WORK AND MATERIAL USED FOR		JDING CONTRACTOR/SUB					
3:45 P.M. PICTURE # 4066 & 3:46 P.M.	PICTURE # 4067 SE	E PILTURE FOR DETAILS					
3:45 P.M. CREW WAS GETTING 5"	HOPESW PERF TI	LE AREA PROPERTO					
FOR MAKING CONNECTIONS		1.1.10					
4:15P,M. PERRY AND DYLAN LEF	TSITE						
4:30 P.M. ADAM LEFT SITE.	CREW NEED 7	O GET SUPPLIES					
FOR S"HOPE SW PERF TIL	E CONNECTIONS T	08"CLAYTILE.					
5.00 P.M. OBSERVERLEET SITE AFT	ER SHOOTING EX	STING 4"85" HOPE					
SW PERF TILE FOR NEW TI	EIN CONNECTION	V TO 8" CLAY THE					
LAT Z CONNECTION.							
QUANTITIES ADAM 1:15-1:45 1:45-4:30 7 HOURS 12:15-1:15 THOUR GOTTING BAR. PERRY 8-12:45 12:45-4:15 73/4 HOUR DYLAW 8-12:15, 12:45-4:15 73/4 HOUR 12:15-12:45 1/2 HOUR 12:15-12:45 1/2 HOUR							
PAUL WITH COMERA EQUI							
KOLBELCO SK 8505 MIN	LEXCAUNTOR 7 H	ours					
CASE TR 340 TRACKED S	KIDLOADER 73/	HOURS					
Certify that the work described in this report was incorporate		erwise noted.					
Observer's Signature: Dem Penning	d into this contract unless oth Date Prepared:						
		erwise noted.					



300,65)

Clapsaddle-Garber Associates, Inc.

16 East Main Street, Marshalltown, Iowa 50158, ph 641-752-6701 1523 South Bell Avenue, Suite 101, Ames, Iowa 50010, ph 515-232-1784 5106 Nordic Drive, Cedar Falls, Iowa 50613, ph 319-266-0258 739 Park Avenue, Ackley, Iowa 50601, ph 641-847-3273 511 Bank Street, Webster City, Iowa 50595, ph 515-832-1876 800-542-7981, www.cgaconsultants.com

6844	510	0#14

 07/08/2020

 PN
 Date

 Computed By
 Date

 Checked By
 Date

 Subject
 Date

250 GS TILE	6 LOCATE TOLE LOCATE	om			
	136 65 TILCLOCATE 267 65 APPROX MAIN/LATZ CONNEC	cπoN δ	ZES NRIM BEZNINS INTRKE		AN
FLG"HKKBOTTEN	255 SLOCATE EDA SOME RESSETTIONCE		C"TILE OWNET	Sourir isy	
EGNOWIET TILL FINL SOIL	234 CS LOCATE &	6 HWY 041			
TELE THEO DOWN TOP B'CL O.74' TOP TOP	231 63 THE LOCATE 297 THE SEE HIVE SW	14 WEST & 8-87			
		FIELD BI			
TOP 8"LLAYTOF TOP TOP TOP TELEVISED UPSTA	THE TOP STATE TO	-W	GS TILBLOCATE	END LOCATE COBSTRU	CTION
1	SUPSI MAD	G.3'100-0		TROP	SW PERFTIE IN WEST & EMST
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TOP 4" MOPE STOPPEDE TOPEDE	TOP 8"CLAY TILE			SILVIE COCAUONS
	ECP) / CB-				
	(dBack)	(3.5'± DEEP) SOUTH END TIE	IN)		
NORTH END TO	P8"CLAUTILE				
/ (0)	14 TOPTOFEL)				
1	3.5'±0EEP)				
					1
					172
					HED Y
					2
					LIDE
			NORTH EN	THE SWPER	1 9
			UE	TOP 4"HIPE SWPERF	N TOLE
			NEEDS REPLACED - SOUTH END	(2.5 '+ DEEP) 32 M	BE SIGN
			SOUTH END CUT	TOPY HOPE SWEET	327 INTAKE
			car	(0.36' THE TOPL) (2.1'\$ 052P)	WRIMF
				(41'± 062P)	OUTLET TO SEPATH 33 83 2 SOUTH
					3393 F BOURN
integrame il approprie bittarina l'amangania sus se				Sheet	Nobf

PICTURE # 4051 15 LOOKING SW SHOWING 8" CLAY THE THAT WAS DAMAGED WHILE EXCAVATING TO EXPOSE 14" CLAY

@ LOCATION WHERE WATER MAIN GOES UND ER TILE

GOSH 250 TOP 8" CLAY THE CO.TZ'TOPTOFE)



6PS# 251 TOP 8"CLAY TILE (6.75 TOPTOR 3.7'+ DEEP

> KPS# 252 TOP 14" CLAYTILE (4.9'\$ DEEP)



PICTURES 4052 IS LOOKING NW UPSTREAM INSIDE 8"CLAY TILE WITH Z"+ OF MUD IN FLOWLING FROM GAS# 250. TILE IS IN 6000 SHAPE WITH PEW FINE ROOTS AND A FEW OFFSET JOINTS

PICTURE# 4053 IS LOOKING SE DOWNSTREAM INSUE 8"CLAY TILE
WITH 2" + OF MUD IN FLOWLINE FROM GPS # 251. TILE MAS A"
LITTLE POPOUT AT NEWT JO INT AND IS IN 6000 SHAPE WITH 2" MUD
AN FLOWLINE AND GOMMETTELY FULL DOWNSTREAM. RON



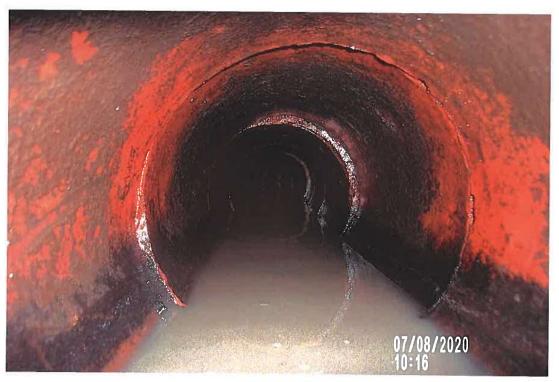
THINKS
THIS TILE
IS
ABANDONED

N

PICTURE # 4054 15 LOOKING EAST IN SOUTH DITCH COHWY 04/
2972 WEST OF & COHWY 5-27 SHOWING EREW EXPOSING LATZ TILE
WEST OF BEEHWE INTAKE SO CREW CAN RUN LOCATE CABLE UPSTREAM







NA

FROM 6PS # 255 SHOWING TILE IN GOOD CONDITION WITH \$14" OF WATER AND NOT MUCH FLOW. TILE IS 3.1' + DEEP.

PICTURE # 4056 IS LOOKING SE UPSTREAM INSIDE 8"CLAYTILE SHOWING TILE IN GOOD CONDITION WITH 3/4" WATER IN FL'& NOT MUCH FLOW. THE &S 3,1' + OEEP.

16" CLAY THE INLET FROM BEEHIVE INTAKE 07/08/2020 10:16



PICTURE# 4057 IS LOOKING NW SHOWING SECTION OF 8" CLAY TILE ROLLED OUT IN SOUTH DITCH OF COHWY DY! NW OF BEEHIVE INTAKE FOR CREW TO RUN LOCATOR CABLE UPSTREAM TO FIND PLUG IN TILE.

PICTURE # 4058 IS LOOKING NORTH , SHOWING CREW EXCAVATING MONG PIELO EDGE IN WEST DITCH OF COHWYS-27 TO EXPOSE TILE TO CHECK GONDITION, FLOWAND RUN LOCATE CABLE.



AN



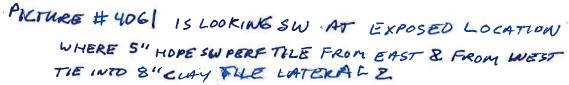
WATER FILLING UP IN HOLE, EXCAVATED ON EAST SIDE OF WATER MANA

PILTURE#4059 IS LOOKING NORTH SHOWING CREW NOW EXCAVATING ON WEST SLOB OF WATER MAIN TO CHECK IF WATER MAIN IS THE CAUSE.

FICTURE # 4060 IS LOOKING UPSTREAM INSIDE 8"CLAY
TILE @ 21.3 TUPSTREAM FROM BEEHIVE, INTAKE SHOWING 5"PERF
SWHOPE THE FROM EAST & FROM WEST CONNECTING AT SAME LOCATION
WITH SIDES CRACKED AND TOP CAVING DOWN WITH TILE PLUGGED USTREAM





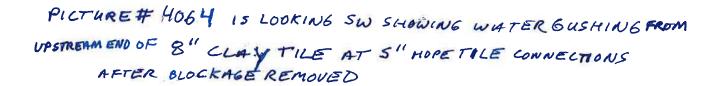




PILTURE# 4062 IS LOOKING SE AT TOP VIEW OF 5"HOPE
SWPERF TILE FROM WEST & EAST TIEBNE INTO SAME LOCATION
INTO BROKEN 8" CLAYTILE AND PLUGGED LINE







PICTURE # 4065 IS LOOKING SOUTH SHOWING S"HOPE TILE CONNECTION WITH S"HOPE TILE FROM WEST HAVING A SAC OR HUMPE UP IN A SPOT.



IN



IN

PICTURE # 4066 IS LOOKING WORTH SHOWING WATER GONE NOW
IN EXCAPATED HOLE IN WEST DITCH OF COTHWY SZ7 ALONG
FIELD EDGE EAST OF WATERMAIN N-S

PICTURE#4067 IS LOOKING WORTH SHOWING PREVIOUSILY
EXCAVATED HULE EAST OF EAST ROW FEWCE FOR CO. HWY
527 & SOUTH OF COHWY D41





PICTURE # 4068 IS LOOKING NW SHOWING TILE FLOWING
IN SOUTH DITCH OF CO. HWY DY!

PICTURE # 4069 ISLOOKING EAST SHOWING 5" HOPE SWPERF TILE CONNECTION AREA. 8"CLAY TILE STILL FLOWING 6000.



- 5"HOPE SWPERFTILE



& FULL OF SOIL

PICTURE#4070 IS LOOKING NW FROM COHWY 041 SHOWING ARE AIN NORTH DITCH EXCAVATED AND HOLE EXCAVATED IN FIELD AT TILE / WATERMAIN CROSSING.

PICTURE# 407/ IS LOOKING SE TOWARDS COHWYDY/ SHOWING 14" CLAY TILE FLOW ING GOOD





PICTURE # 4072 IS LOOKING WEST SHOWING BEEHIVE INTAKE IN NORTH DITCH OF WHWY DY! 170.8' + WEST OF & CO HWY S-27

	TION ENGINEERING ATION REPORT	DATE:	07/09/2020
PROJECT NUMBER:	HARDIN DO WO# 292	DAYS OF WEEK:	SMTWØFS
COUNTY, ROUTE, RO		SHEET NO.	OF 6
LOCATION: SEY4 SEY4	5-27 & COHWY DY 1 27-88-22 NEYY NEYY 24-88-22 NWYY 35-88-22 TOVESTICA TILE DOIY MAINOR LATZ	MID GOS FO	LOW 80'S CLOUDY AND AFTERWOON RAIN! SHINE BY LATE AFTERNOON
	K AND MATERIAL USED FO	R EACH OPERATION, INC	LUDING CONTRACTOR SUB
8:20 A.M. OBSE	RVER ARRIVEDON SIT		FT_OFFICE FOR JOBSITE
3/4 " TR	UNREROD O.Z' + DEEP S	W CORNER FIELD DR	IVE IN SECUENCE
OF COH	WYDAIR COHWY 527.		
8:40 A.M. ADA	M ON SITE AND DROPP	ED OFF CONCRETE	MIXER
8:45 AIM, OBSER	VER HAD GES BASE SET	UP AND CHECKED	INTO GRS#ZI SURVEY
MARKA	MAIL FLUSHIN ACC	IN COHWY S-27 ABO	UT 2632't SOUTHOR
& CO HW	40-41 WITH BOTH HORI	CONTAL AN VERTIC	AL POSITION CHECKING
600D a			***
8:58 A.M. PICTURE	#4088, 9.08 A.M. PICTURE#	4089, & 9:18 A.M. PICT	URE# 4090 SEE PICTURE FOR DETAILS,
9:30 A.M. OB	ERVER STARTED SHO	OTTING GORN DAME	LE ON NORTH SIDE
OF CO	HWY 041. ADAM	LEFT SITE TO	GET ANOTHER
Lono	OF I'CLEAN ROC	CK WITH TRUCK A	NO DUMPTRAILER
9:30 A.M. PICTU	RE#4091, 9:38 A.M. P	ICTURE# 409Z SEE	E PICTURES FORDETAILS
9:40 A.M. ROW	VIERKANDT STOPPED	ONSITE ANDOBSE	RUEK IN FORM ST
10:00 AM DE	HAT CREW WILL BE BY AND BYLAN ARRWE SER VER FINISHED	WORKING ON MAK DON SVIB WITH T SHOOTING GORN , B	ING THE TODAY THE FOR REPAIR AM 46 # (SHOTS)
FOR LOCATION GP	5# 270 TO 6PS# 300	0.371 ACRES. A	LSO ADAM WAS
DAMASSHI B.	ACK WITH LOAD OF	: I"CLEAN ROCK	SITE WAS
	LED RECEIVING R	AINL RADAR SHOW	VED LT YOULDNOTLAST LONG)
10:20 A.M.	RAIN WAS DONE AT	SITE	
			EPICTURE FORDETHILS
10130 A.M.	REW WAS PREPPI	NE 14" CLAYTIL	E REPAIR 168' NORTH
OF C	E OF GO HWY DYI IN	FIELD.	- I Ball to the
11:56 A.M. PICT	VRE # 4095 IZIOZ PICTURE	E# 4096 & 12:03 PICTU	RE#4097 SEE PICTURE FOR DETAILS
11:00 A.M. C	ARSON ARRIVED	ONSITE	DETAILS
12:34 Pur PEC	WE # 4098 & 12:431	CLTURE # 4099 SEE	PICTURE FOR DETAILS.
	ribed in this report was incorpora	1.6	
Observer's Signature:		Date Prepared:	10.20
Reviewed by:	Dean Penny	Engineer	07/09/2020
	-	- [Date Reviewed

CONSTRUC Obser	CTION ENGINEERING VATION REPORT	DATE:	07/09/2020
PROJECT NUMBER:	HAROIN DO WO# 292	DAYS OF WEEK:	$SMTW\Phi FS$
COUNTY, ROUTE, RO	OAD: 6844.5/00#14 TNTERSECTION OF 4	SHEET NO.	2 of 6
LOCATION: SEY SEY	5-27 8 co HWY 041 4 27-88-22 NE 4 NE 4 34-88 4 NW 4 35-88-22 TAVES	B-ZZ, MID MORNING &	D LOW 80'S CLOUDY MID AFTERWOON RAW! NSHINE BY LATE AFTERNOON
DESCRIPTION OF WONAME, ITEM NO. AND	RK AND MATERIAL USED LOCATION 12:528.M. A.	EOD EACH OPERATION IN	JOB# 6844 DDI4. SURVEY NCLUDING CONTRACTORSUB 56 P.M. PLOTURE #4101
SEE PICTU	RE FOR DETAILS.	Charlet Hoo of 1-1	12 1 10 URE # 4101
REPAIRS	NORTH OF 168	ENURTHUF & COKWY DY	
COHWY	041	PL 1142.99	1'TOPTOPL (5.130EEP)
$ \uparrow$ \land	LS33	EL 1143,03	NONPERFTILE Brownork (S.I'+ DEEP)
<u> </u>		1110-2	
	CRASIC	PL 1145.20	N BUI
- Fis		ES ON HOSE SENT OF ECONOMIC TOP STORE CLASS	Hwy 041 , TLC 0.72'TUPTOFL) 3.7's OCEP TIELD EDGE (0.75'TOPTOR) 3.7's Dec
		FL6"HICKENBOTTON	THE LOCATE EGASOMERICOSTENCE
60	HWY	——————————————————————————————————————	340,4' ± WEST OF & COHWY
1:20 PIM. PLETUR	E# 41048 2:02 PI 2E# 4107 8 2:21 PI 1041	PICTURE# 4103 SE CTURE# 4105 & PICTURE# 4108 GPS# 255 TOP 8" CLAY RIGINAL B"CLAY THE ROLLED BACK INTO PLACE GPS# 254 TOP 8	I SIDE OF COHWY DY EPICTURE FOR DETAILS WE # 4106 SEE PICTURE FOR DETAILS. TILE 0.74' TOPTOFL FL 1144.01 (3.1' DEEP) "CLAY TILE 0.74' TOPTOFL (3.16' DEEP)
	14109 3:07 P.M PICTURE WRE # 4113 SEE PIC	RE#4110, 3:20 PM POLITIFICATION POR DETTIFICATION Propagated:	CTURE# 4111, FIETURE# 5. otherwise noted. 07/09/zozo
Reviewed by:		Engineer	Date Reviewed

CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	07/09/2020
PROJECT NUMBER: HAROW DO 40# 292.	DAYS OF WEEK:	SMTWOFS
COUNTY, ROUTE, ROAD: TNTERSECTION OF CO HWY	SHEET NO.	OF6
LOCATION: SE 4 SE 4 27-88-22 NE 4 NE 4 24-88-22, 8 NW 44 NW 44 35-88-22 TOVESTICATE FOR PLUGGED TILE DO 14 MAINOR LAT 2	MID 60'S FO L MID MORNING & MID SHOWER WITH SUN'S H & LIGHT WIND TH	AFTERNOON RAIN!
DESCRIPTION OF WORK AND MATERIAL USED FOR ENAME, ITEM NO. AND LOCATION 3.26 P. M. O. O.	EACH OPERATION, INCLU	JDING CONTRACTOR SUB
NAME, ITEM NO. AND LOCATION 3:26 P.M. PICT 4115 SEE PICTURE FOR DETA	4/CC	6 Pim, PLUTURE#
- Co Hung Dyl	ROW	5 HOPE SWPERF
FIELD	8060	CONNECTIONS TO
TOTAL 30 - 60 1B BUGS OF QUITRETE HIST STRENGTH CONGRESSE USED ON	ALL SIN CHARGETTE COL	WIFERENS
- Hallette	A /- 06'8 557-6	unes,
Hy concrete 18 colu	18 46.5 ± 80WT	TOF & 20 HWY 041) YTILE (0.74'TOPTOFL) 3.5'100
GPS # 306 TOP SIMHOPE PERFOLE 34 0	10 LE 8" DU A	TE COM TOPTOFL 3.5400
PERFYLLS 0149' TOP TOPE	11	LOPE NONPERF TILE
	A STATE OF THE PARTY OF THE PAR	INTERNAL SNAP COSPLER
GPSH 307 TOP S"XS" AN COURSE	TA PIOLO XO FO	1.0 XI.5 C"x6" SOUME
HOME TEL 3.5 LOEEP	HOPE TEE	2.0'X ZIO' FABRIC
34 courses	100 304 AVE	
Court		SE ZES TOPS" HOPE PERE
5" TATELWAL	GPS#PRO	BLF OF 5"HOPE PERFTILE
SNAP COUPLER		S HOPE PERFTILE THE
6PSH 303 TOP ENIGING SHOPE	1 36 Land	TOP 8" CLAYTILE BEFTILE
5" HOPE PERF PERFTIL	A Burn	OLICE TOPTOPE
THE (0,43 TOP TO FE)	6.64 OW WITH.	OITZ' TOPTOFL VI CONNECTION SLY CONCRETE COURSE CO
FL1144.59'	HOPE PE	Colum
	The same of the sa	en .
- Property of the second of th	HOPE INTERNAL TOPYE	HOPE
6PS#302 TOP8"CLAN 1144.85	TL II	134 TOP TOFL ZIG' ± DEEP
-0.72	3-114403	42091
1144.13	3.30 - 10503/FT	GRADE 8" LATERACHZ
GPS# 267 TOP 8"CLAY 1144.77		
-0.74		
1144.03		
Certify that the work described in this		
I Certify that the work described in this report was incorporated Observer's Signature:		rwise noted.
- Deny Comme	Date Prepared:	07/09/2020
Reviewed by:	Engineer	1. V 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1. 1 1.
		Date Reviewed

	I ION ENGINEERING 'ATION REPORT	DATE:	07/09/2020
PROJECT NUMBER:	HARDIN DO WO# 292	DAYS OF WEEK	$SMTW\Phi FS$
COUNTY, ROUTE, ROA	4D: TNTER SECTION OF CO HE	SHEET NO.	4 of 6
LOCATION: SEMSEM	5-27 8 CO HWY 041 27-88-22 NEY NEW 34-88-22 NWY 35-88-22 THERESTICA	m10605	FO LOW BO'S CLOUDY 8 MID AFTERWOON RAND
1-In Fausago	DOIS WHINOKERS	SHOWER WITH S	UNSHINE BY COT & ATTENDER
DESCRIPTION OF WOR NAME, ITEM NO. AND	K AND MATERIAL USED FO LOCATION 3:48 P.M	REACH OPERATION, CREW, DONE PA	TOB# 6844 ODI4.SURVEY INCLUDING CONTRACTORSUB RETURN 34 CONCRETE
COLLARS	FOR 5"HOPE PERF T	TILE TIE IN C	ONNECTION AND START
WORKING	ON TILEREPHIES	ON ENST& WE	STSIDE OF COHWY
5-27.			/
3:51 Pim. PILT	URE # 4116 SEE	PICTURE FOR I	ETAILS
4.00 PIM PLU	URE# 4117 & 4:011	P.M. PICTURE # 411	9 SEE PLOTUPES FOR DETAILS
7.03 PIM, PICTU	RE#4128 & 4:06P,N	n PICTURE #4	12.1 SEEPICTURE FOR DETMIS
4,50 Pelly PIC	TURE# 4122 SEE	PICTURE FOR	DETWILL
5:26 Pime Pier	URE # 4/23 & 5:36+	PICTURE # 4	IZY SEE PICTURE FOR DETAILS
3:36P,M. PIL	TURB #4125 & PICE	TUREST 4126 SE	E PICTURE FOR NOTIFIE
Gill Pine Pl	CTURE # 4127 8 6	5:15 PICTURE #41	28 SEEPHTURE FOR DETHUS
7140 PM. PLL	TURE # 4129, 7:41 P.	M. PILTURET 4	130 SEEPICTURE FOR
7142 Bon PU	TURE# 4131 & PU	TURE #1 SE	PICTURE FOR DETAILS
7100 PM C	REW LEFT SITE	CREW WILL E	INVESTIGATE PROPERTY OF
			INISH BACKFILING
ADMY 8:4	0-9130, 10 707	934 HOURS	- L'CLEMEN ROCK WITH DUMP TRAILER YZHER
DYLAN 9:4	5 to 7 91/4 Hours	C DEFE	GUIS TO THE DWG TRAILOR YSELR
CHRSON IIT		PENRY	9:45 TO ? 9/4 HOURS
LACE TI	SK 85 CS MINI E	X CHUATOR	10 TOT 9 HOURS
Laure Sett	2 340 TRACKED S		
CONCRETE	MIKER ON SKIDL	/	REPAIR N. OF OHI 1/2 HOUR
			REPATRIN OF DAI YZHOUR
		8" cury a	EPAIR SDITCH DY & HOUR
2-2-18-6		RESTOF	DNCRETE COLLARS. I HOUR
REPAIRS			
19 CLAYTILE	REPAIR (NORTH OF D	41) 2.6 LF 15 10	OW HOPE NONPERFTILE
		ノーラムメイデ	ANCINIA CARA
Certify that the work door	ibad in this capa : 4.01 & 1.	5 X40 6 42 6	ALL TE LUDE NECLI
Observer's Signature	ibed in this report was incorpora		ss otherwise noted.
Observer's Signature:	Dean Penny	Date Prepared -	07/09/2020
Reviewed by:		Engineer	€ 60.
			Date Reviewed

CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	07/09/2020
PROJECT NUMBER: HARDIN DO WO# 292	DAYS OF WEEK:	SMTWØFS
COUNTY, ROUTE, ROAD: TNTER SECTION OF CO HWY	SHEET NO.	5 of 6
LOCATION: SE'4 SE'4 27-88-22, NE'4 NE'4 34-88-22,	MID MORNING & MI	OW 80'S CLOWDY DAFTERWOON RAIN!
DESCRIPTION OF WORK AND MATERIAL USED FOR E	EACH OPERATION, INCL	UDING CONTRACTOR SHR
18-80.0	BAGS OF QUIKRE	TE 141614 STRENGTH CONDRETS
2) B"CLAYTILE REPAIR (NORTH	OF 041)	
		NGINEER FABRIC
		6"x6" SQUARE WIREMEST
		HOPE WOWPERF TILE
	O GOLD DAG	S OF QUILLETE HIGH STREMENT
3 8" CLAY ROLLBACK IN SOUTH DIT	TCH OF DUI) 1,5 x20	6456 COURSE WER NOTEL
REPAIR	2.0'x2.0'	EWLINEERING FABRIC
	5-60LB	QUIKRETE HIGH STREWSTH
		Control of the second
(4) S"HOPE PERFTILE TIE IN REA	PAIR	
(4A) 8" MAIN 1.2 LF 8"	DWWON PERFTIL	HOPE 8"X8"X5"TEE,
(4A) 3" MAIN 1.2 LF 8" (TOTAL 5.35 LF) 0.7 LF 8" Ø 1	W NONPERFTILE	HOPE 8"x8"x5"4EE
& 1.0 LF 8	3" DOW NONPERFT	76
40 50- 516		
(4B) ENST S" PERFTILE TI	EIN	
5" HOPE TINT	ERNAL SNAP W	UPLER
3,8LF of 3	5" HOPE PERFT	LE
(4c) WEST 5" PERFTILE	TIE IN	
		E, 5"x5"x4"HORE TEE,
Z.7LFOF5	" MOPESWPERFTIL	E 5" & HOPE INTERNAL
SNAP LOUP	LER 616 LF OF	H" HOPEPERFTILE,
84" HOPE	TNTERNAL SNAP C	MPLER
(40) 14 CONCRETE COLLAR	25	
8"CLAY TO B"H	SOUTH END SXX 1.5	WINE MEST
Certify that the work described in this report was incorporated	into this contract unless oth	erwise noted.
Observer's Cignotum	Date Prepared:	07/09/2020
Reviewed by:	Engineer	11000
		Date Reviewed

	ION ENGINEERING ATION REPORT	DATE:	07/09/2020
PROJECT NUMBER:	MAROW DO WO # 292	DAYS OF WEEK:	SMTWOFS
COUNTY, ROUTE, ROA	D: INTERSECTION OF CO	SHEET NO.	6_OF6
LOCATION: SEY4 SEX	HWY 5-27 & COHWD 4 2788-22 NE YUNE YU JUBB-2 NWY 35-88-22 SOVESTICAT SO THE DOM MANORLATZ	MIO GOST MO MORAN RAINSHOWER	OLOW 80'S CLOUDY INC BING AFTERNOON WORE SUMSHING RY LATE
DESCRIPTION OF WORK	AND MATERIAL USED FOR	EACH OPERATION IN	TOB # 6844 DOWN SURVEY ICLUDING CONTRACTOR/SUB ABRICOVER BOTH 8"x8"X
(5" HD	PETEE TO S"HOPE	ESW PERFUE	SLIDIN CONNECTIONS
-1,5x2,0	ENGINEERFABRI	COVER BOTH 5" HOP	E TO S'HOPE INTERNAL
Conple	R CONNECTIONS.		THE PRICE OF L
-1.5'x2.0'	ENGINEERING FAB	RIC OVER 4"+	IDPE TOY" HOPE INTERNAL
Coupe	ER CONNECTION, L	I"HOPE SUID "	V CONNIECTION OW
5",	S"X4" HOPETEE, &	AROUND 5 5"x5	"XY" TEE CONNINECTIONS
- 26 - 60	21B BAGS OF QUI	KRETE HIGH	STREWGTH CONCRETE,
(5) HOLE IN 9	"HOPE NOMPERF TIE	5 000	
	ZOXZO ENGINEE		
	1.0x20' 6"x6"	EDUNE TUNO 5	No ST & I
	4-60LB BAGG OF	BILLERETTS HIL	H STREWGTH CONCRETE,
	00 32 211, 200	TO THE PARTY OF THE	1 STRENGITI CONCRETE,
(6) 4" HOPE	PERF TILE REPAR		
	9.8LF 4" HOPE	PERF TILE	WITH Z 4" INTERNAL COUNTERS
LOAD # 1 M	ARTIN MARIETTA T	ICKET# 30224	3 I"CLEMON ROCK 7.58 TONS
LOADIT Z	MARTIN MARIETTA TICH	ET#	I'CLEAN ROCK TONS
CORN DAMAGE	41 0,371 AC CURW DA	MAGE # Z 0.043 A	C: CORN DAMAGE #3 0.05 1 A
ADDITIONAL	ACTIONS - FINE GA	RADE & SEED;	SOUTH DITCH COHWYDU,
	NORTH DITCH	COHWYDYI, &	WEST DITCH COHWY 527
	WET LOOVE AT	REA DISTURBED	BUREPAIR
- 14" CLAY	TILE REPAIR NOF	DUD SOIL WAS	MIXED WITH CORNISTALKS
	MOW FUTTO A SOLL PUT	FURIT CETTLE DUE	TO STALKS MINED WITH SOLL
8" CLAYTI	LE AT 6PS# 250 TO EPS# 2	SI HELD WITH CROS	AN TILE) SSING NORTH DYI APPEARS TO BE
- 6" HILKE	ON BOTTON FULLOFS	OLL ALONG WIT	HOWIET TILE BEING
LRA CRA	HERED AND FULL OF	SOIL (MYYNEED	REPLACED SOMETIME
I Certify that the work	n this report was incorporate	TAKE TO EAST d into this contract unless	OTHER TO THE WEST OF COHWYSED
Observer's Signature:	Dear Penny	Date Prepared:	07/09/2020
Reviewed by:	The same of the sa	Engineer	011071 2000
			Date Reviewed



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☐ Voting Districts
☐ LOMR

School Districts ☐ Two Mile Boundary ☐ Airport Protected Garden Winds Turbines

H00000E782299 200 R 🗻

40000km 3km 400

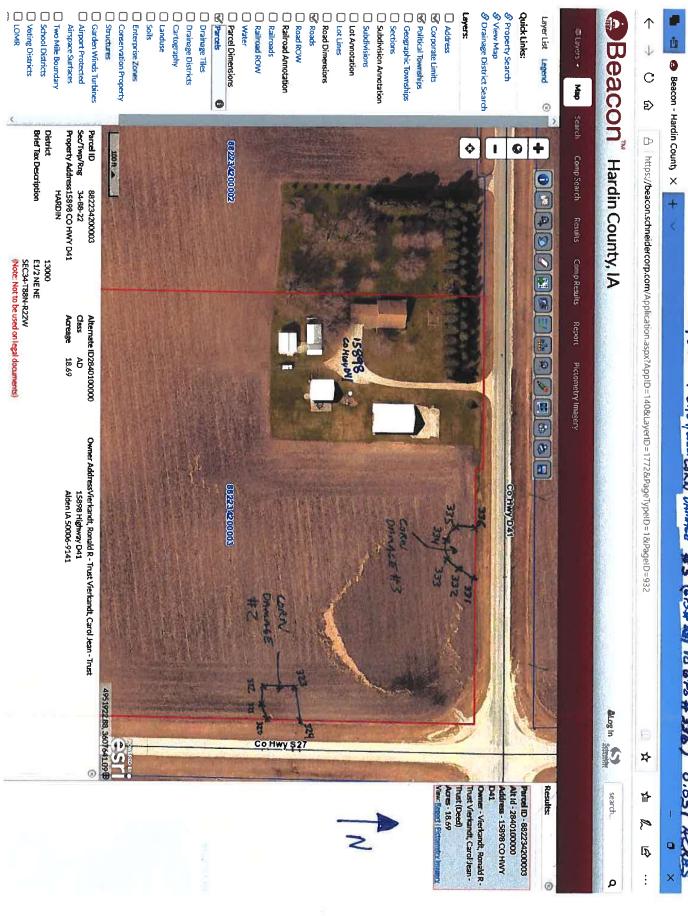
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4951987.85,3607718.65 E

Airspace Surfaces



4



PICTURE # 4028 SHOWING PILE OF DEBRIS PULLED OUT OF THE

(WHERE 8"CLAYTHE SECTION WAS ROLLED OUT IN SOUTH DITCH OF

COHWYD41) BEFORE IT WENT DOWNSTREAM AFTER PLUGGED

TILE WASOPENED





PICTURE #4089 IS LOOKING NE INSIDE TILE WYE ACCESS LID ON SOUTH SIDE OF CO HWY DY 1195.6' WEST OF & COHWY SZ?
SHOWING TILE IS STILL PLOWING GOOD AT THIS LOCATION

N

PICTURE # 4090 SHOWING 6" HICKEN BOTTOM WITH TOP COMPLETELY BROKE OFF AND FL COMPLETELY FULL OF SOIL WITH 6" GLAY TILE OUTLET BROKE AND COMPLETELY FULL OF SOIL. PICTURE IS LOOKING WEST IN NORTH DITCH OF CO MWY 041





PICTURE #4091 IS LOOKING EAST FROM GRAVEL DRIVE FOR 20825 COMMY SZ7 OFF OF COHWY DY! SHOWING CORN DAMAGE ! OUT TO TILE REPAIR.

Α/

PICTURE# 4092 IS LOOKING NW FROM SOUTH DITCH OF COHWY DYL SHOWING CORN DAMAGE POUT TO TILE REPAIR.



Tw



PICTURE# 4093 IS LOOKING WEST SHOWING CORN DAMAGE!

TO TILE REPAIR LOOKING TOWARDS 20825! COHWY 527

GRAVEL DRIVE OFF COHWY D41.

PICTURE # 4094 IS LOOK FNG SE. TOWARDS COHWYDY OF







PICTURE# 4095 IS LOOKINGSE SHOWING Z.6 LF. PIECE OF 15'DOW HOPE NOWPERF THE IN PLACE FOR REPAIR WITH BEDDING ROCK UNDER TILE

PICTURE # 4096 15 LOOKING NW SHOWING FABRIC & MESH OVER WORTH & BOUTH TIE IN JOINTS FOR 14" CLAY TILE REPAIR NORTH OF COTHWY D4 (CBF 2.0'x 3.5" FABRIC WITH 1.0' X 4.0' 247 WIRE MESH OVER JOINT BEFORE





PICTURE# 4097 IS LOOK NW SHOWING CREW POURING 3/4 CONCRETE
COLLARS FOR 14" CLAYTICE REPAIR FROM QUIKRETE BAGS MIXED
IN A CONCRETE MIXER THAT ATTACHES TO A SKIDLOADER.

PICTURE # 4098 IS LOOKING SE DOWNSTRAM FROM 6PS # 251

TOP 8"CLAY TILE (0:75' TOP TOP) AFTER A MOTHER DAMAGED

WO'SECTION OF TILE WAS REMOVED. 2" MUD IN FL TO COMPETELY

ROW SAVE TILE HAS BEEN ABANDONED BUT





PICTURE # 4099 IS LOOKING SE SHOWING ZILF 8" OW HOPE PERF TILE INPLACE WITH ZID'X3ID' FABRIC & 1.5'XZID' G"X6"WIRE MESH OVER JOINTS BEFORE 3/4 CONCRETE COLLAR POURED

PICTURE # 4100 IS LOOKING SW AT FINISHED 3/4 CONCRETE

ZOLLAR FOR 8" CLAY THEREPHR 55 & NORTH OF & COHWY DY!.

CREW USED 8-601B QUIKRETE HIGHSTREWETH CONCRETE BAGS.





PICTURE #410 IS LOWKING NW AT FINISHED 3/4 CONCRETE COLUMN FOR 14" CLANTILE REPAIR 168' NORTH OF & COHWY 041, CREW USED 18-6018 QUIKRETE HIGH STRENGTH CONCRETE BAGS FOR CONCRETE COLLARS.

PICTURE # 4102 IS LOOKING NW IN SOUTH DITCH OF CO HWY

041 9.5' & WEST OF WEST RIM OF BEEHIVE INTAKE

SHOWING 8" CLAYTHE SECTION ROLLED BACKIN PLACE;



CRIMIZES
TOPE CAMY
TILE
COMMYTOPTOFL
311' # DEEP

N

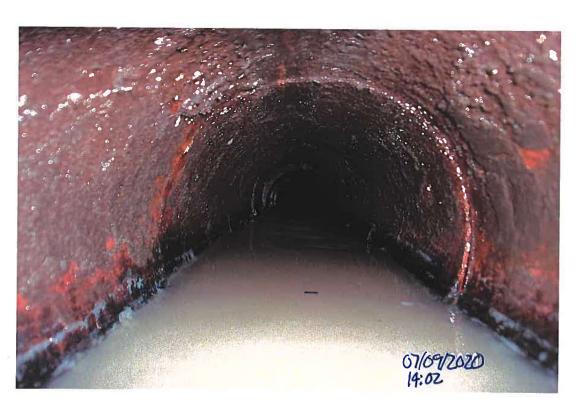
TOPS "CLAMY TILE (6.74 TOPTO FL)



PICTURE# 4103 IS LOOKING UPSTREAM INSIDE 8"CLAY TILE WITH ABOUT I" FLOW AT GPS #30Z (TOP 8"CLAY THE) (0.72' FOR TOFL)

PICTURE # 4104 IS LOOKING NW SHOWING 2.0'X 2.0' ENGINEERING
PASRIC & 1.5'X 2.0' 6"X6" SOMARE WIRE MESH OVER JOINT FOR
S"CLAYTHE SECTION ROLLED BACKINTO PLACE BEFORE 34 CONCRETE
COLLAR POWERD.





PICTURE # 4105 IS LOOKING DOWN. STREAM INSIDE 8"CLAY
TILE WITH ABOUT 2"1 OF SLOW WATER FLOW.

PICTURE # 4106 IS LOOKING NORTH SHOWING 3/9 "CONCRETE

COLLAR POURED FOR 3" CLAY TILB SECTION ROLLED

BACKINTO PLACE 9/5 & WESTOF BEHING FINTHE, CREW USED 5-6018 BAGS OF

JOBSHZSS: QUIKRETE HIGH STRENGTY;





GPSH 254





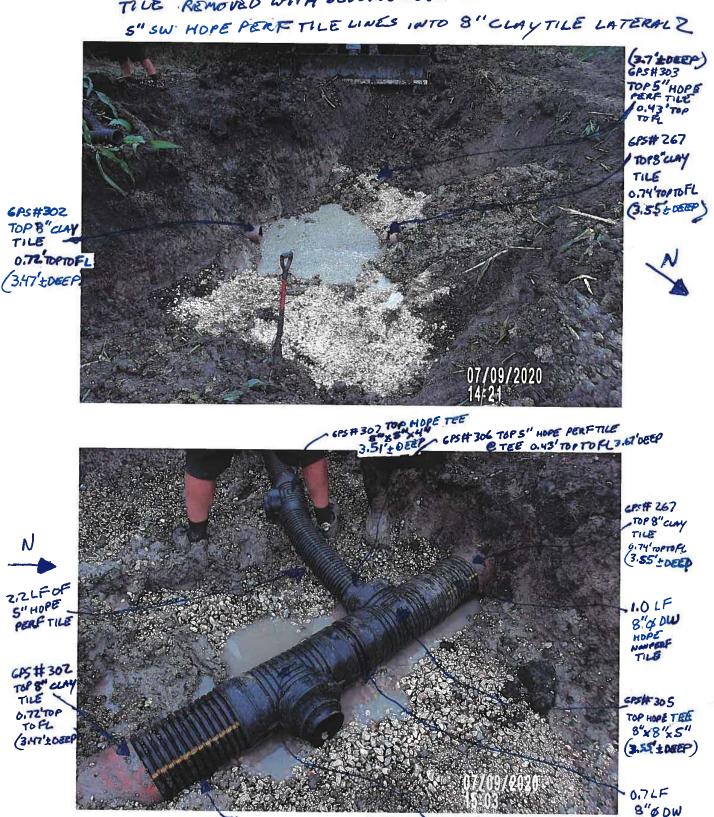
M

PICTURE # 4107 IS LOOKING NORTH SHOWING BEDDING

ROCK BACKFILLED AROUND 3/4 CONCRETE COLLAR IN SOUTH

DITCH OF COHMY BY FOR 8" CLAY TILE SECTION ROUED BACK INTO PLACE.

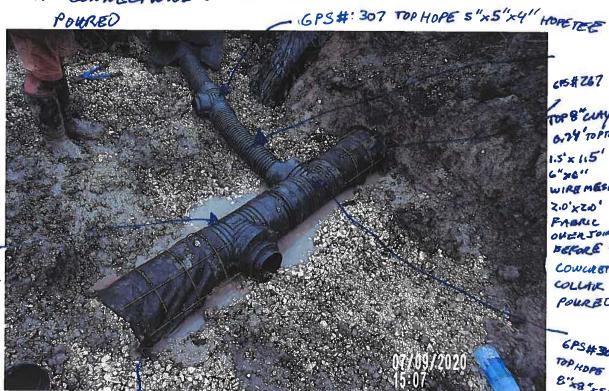
PICTURE# 4108 15 LOOKING SW SHOWING 8"CLAY TILE REMOVED WITH BEDOING ROCK IN PLACE TO TIE IN



1.2 LF 8 FOW HOPE - LASH 304 TOP HOPETEE PICTURE # 4109 IS LOOK ING WEST AT 8" DW HOPE NONDERFTILE HOPE NONPERF TILE

PERF TILE INSTALLED INTO THE WITH 5"x5"x4" HOPE TEE INSTALLED ON IT

PICTURE # 4110 15 LOOKING WEST AT NORTH & SOUTH TIE IN CONNECTIONS ON 8" LATZ BEFORE 3/4 CONCRETE COLLARS



45# 267 TOP 8"CLAY STOTE PERO 1.5'x 1.5' 6"26" WIRE MESH Z.0'XZ.0' FABRIC OVERJOIM BEFORE 3/4 COWLLETE COLLAK POURBO

6PS#305 TOPHOPE 8"48"X5" TEE

TOPS" CAN DAR POPTOFE 1.5' X 1.5' 6" X 6" WIRE MESH B. 2.0'X 2.0' FINANCE OVER JOHNT BEFORE 3/4 CONCRETE COLLAR POLACED



6PS# 263 TOP 5 "HOPE PERFTILE 0.43'TOFTOFL

1 302,

PICTURE # 411 IS LOOKING NW SHOWING 3/4 CONCRETE COLLARS POURSO AT CONNECTIONS FOR S" HOPE SWPERFTILE TIE INS . CREW USED 17-60 18 BAGS OF QUIKRETE MICH STRENGTH

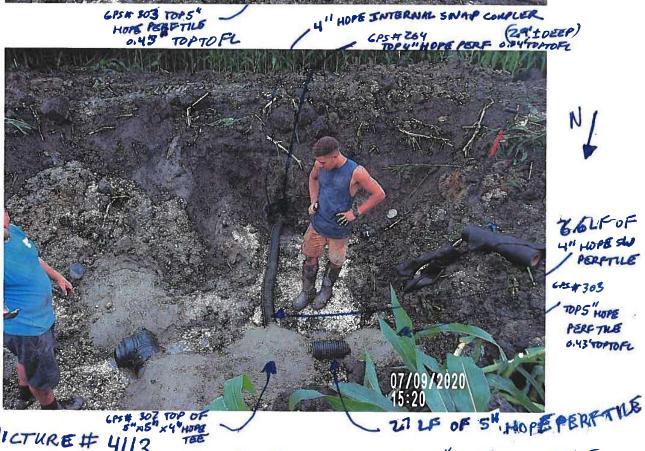
CPS#304 TOP HOPE 8"x8"x5" TEE

PICTURE #4112 IS LOOKING EAST SHOWING 3/4 CONCRETE COLLARS POURS (USED 17 QUIKRETE HIGH STRENGTH CONCRETE BASS



CPS#ZCY
TOPY"HOPE
PERF
0.34 TOPTOFL
(2.9 ** DEEP)

10



PICTURE # 4113 TEE

TIED INTO 5" HOPE PEUR TILE TIED INTO 8" HOPE NOW PERF

LAT Z WITH 34 CONCRETE COLLARS (USED 17 QUIKRETE CONCRETE)

PICTURE #4114 IS LOOKING NE SHOWING 5" HOPE SW PERP THE TIE IN CONNETION INTO E"HOPE LATERAL #Z.

GPS# 263 TOPS" HOPE PERF TILE 5048' TOPTOFL



3.8 LFOF

5"HOPE PERFTILE

5"HOPE MITERNAL SNAP COUPEEN

CASE 304 TOP 8"x8"x5" HOPE TEE



6PS# 263 5"HOPE SWPERF TILE

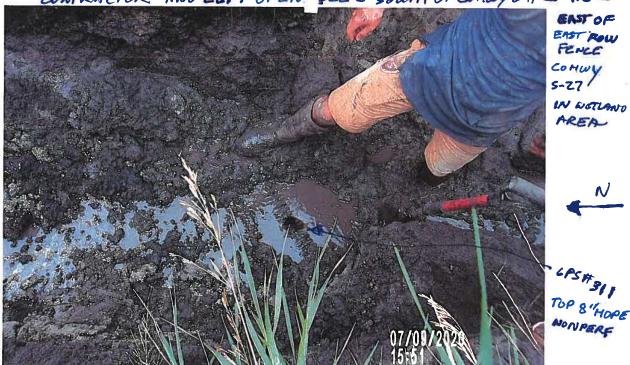
> 685# 304 TOP8" x8" x5" PICTURE# 4115

IN CONNECTIONS 34 CONCRETE COLLARS. LUSED 9-6016 BAGSOF OF QUIKRETE HIGH STRENETH CONCRETE)

PICTURE # 416 IS LOOKING EAST SHOWING MOLE IN TOP.

OF 8" HOPE NONDERF TILE EXCAVATED BY ANOTHER

CONTRACTOR AND LEFT OPEN 322't SOUTH OF COMMY DY 1 & 9.6'E





PICTURE # 4117 IS LOOKING DOWNSTREAM - INSIDE 8"TILE
SHOWING LHANGE OF MATERIAL. TILE LOOKS GOOD SHAPE
WITH WATER LEVEL AT 4" (SLOW PLOW). ALSO FLOWLINE HAS SOFT MUCK BUT
SHOULD FLUSH OUT NOW THE OPEN.

PICTURE # 4119 IS LOOKING UPSTREAM (FROM EPS#311) INSIDE & THE
SHOWING THE IN GOOD SHAPE BUT CHANGEDTO CLAY WITH
WHTERLEVEL AT 4" (SLOW FROW). ALSO FLOWLINE HAS SOFTMUCK
BUT SHOULD FLUSH OUT NOW THAT IT IS





PICTURE # 4170 IS LOOKING EAST SHOWING FABRIC &
1.0'X 1.5' WIRE MESH OVER HOLE BEFOXE 3/4 CONCRETE
COLLAR POURED OVER HOLE INTILE.

COLLAR OVER HOLE IN 8" DWHOPE NON PERFTILE. CREW

USED 4-60 18 BAGS OF QUINRETE HIGHERENGTH CONCRETE

07/09/2020



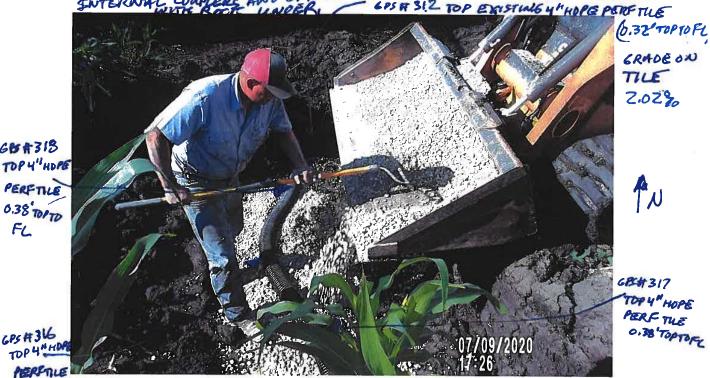
PICTURE # 4122 IS LOOKING NW SHOWING 4 "SWHOPE

PERF TILE THAT NEBOS REPLACED AFTER CUITING TILE

WHILE EXCAUATING TO CHECK LAT # Z. TILE FLOW STATUS

ON BAST SIDE OF CO HWY 5-27.

PICTURE # "4123 IS LOOKING NORTH SHOWING 9.86F OF YN HOPE SW PERFTUE INSTALLED WITH Y"HOPE OF 4" HOPE SW PERT SIDE SOME FOR FIRMER GROUND & BEDDED SINTERNAL COMPLESS AND OFF TO SIDE SOME FOR FIRMER GROUND & BEDDED SINTERNAL COMPLESS AND OFF TO SIDE SOME FOR FIRMER GROUND & BEDDED



68#318

FL

GPS#316

0.38 TOPTOPL

PERF TILE 0.36' TOPTOFL



PILTURE# 4124 IS LOOKING NORTH WEST SIDE OF COHWYSZT SHOWING 4" HOPE PERF TILE REPAIR BEDDED WITHROCK.

PICTURE#4125 IS LOOKING NORTH SCHOWING DITCH WEST SIDE COTHY 5-27 BUCKFILLED & GRADED.







PICTURE# 4/26 IS LOOKING WEST FROM COMMY SZ PABOUT

330'± SOUTH & COHWY DY I SHOWING 4" HOPE SWPERFTICE REPAIR

BACKFILLED & GRADED. 'ALSO SHOWS U.043 AC CORW DAMAGE.

(GPS# 320-#324) DURING REPAIR.

PICTURE # 4127 IS LOOKING EAST SOUTH OF SOUTH ROW OF COMMY DUI SHOWING & 5" HOPE PERF TILE





PICTURE# 4128 IS LOOKING NW SHOWING WORTH 14"

CLAY TILE EXPOSED TREWCH WITH TILE BEDOED

WITH ROCK TO TOPOFTILE

PICTURE#4129 IS LOOKING ENST IN NORTH DITCH OF COHOND DAIL SHOWING DITCH STILL WEEDS GRADED.





PICTURE# 4130 IS LOOKING EAST SCHOWING PILEOF

EXTRA SOLL THAT WAS USED TO BACKFILL (14" CLAY THE WORTHOF)

TILE TREWCLY, CORN STALKS WERE MIXED WITH SOIL CREATING.

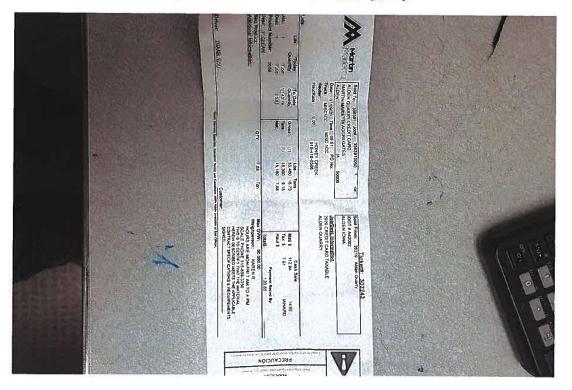
UDIOS AND EXTRASOLL AREA WILLSETTLE OUR TOTTHIS,

PICTURE# 4131 IS LOOKING SE SHOWING 5"HOPE TIE IN TREACH THAT WEEDS BACKFILLED YET. PICTURE





07/09/2020 PICTURE # [LOAD # 1 | "CLEAN ROCK USED TO BED TILE IN REPAIRS.



CONSTRUCTION ENG OBSERVATION R		DATE:	07/13/2020
	00 WO# 292	DAYS OF WEEK:	SOTWIFS
	6844.5 00#14	SHEET NO.	OF Z
COUNTY, ROUTE, ROAD:	8 42 & SOUTH OF	COHWYDY! UPPER	SO'S TOMID 80'S
LOCATION: 35-88-22. NW/A	NUTH INVESTICA-1		R BREEZY
DESCRIPTION OF WORK AND M	ATERIAL LISED FOR F		JOB# 6844 DOIY SURVEY
NAME, ITEM NO. AND LOCATIO	N 07/10/2520 PE	KRY AND TRAUDT	CONTRACTORISTS
7:15 A.M. ADAM CAN			
AROUND 10:0	a A.M. TO RE	PAIR BLOWOUT	INSOUTH OLTCH
0 0 0 41 RA	ST OF BEEHIVE	INTAKE	
7:20 A.M. OBSERVER	NOTIFIED LEE	THAT ADAMS	CREW WOULDES
WORKING TOD	Ay		
8:40 A.M. BSERVER	LEFT OFFICE	FOR JOBSITE	
9:10 AM, DESERVE	2 ARRIVED ON	ISCIE AND SET	GPS PASE ON GPS # 23
3/4"O JRON RE	FROD O.Z' & DEE	P SW COKNER	OFFIELDDRIVE
IN SE QUADR	ANT OF COHWY	D-41 & COHWI	15-27.
9.40 AM, OBSERVER	R MAD GES BAS	ESETUP AND	CHECKEDINTO
			NACC IN COHWY 5-27
ABOUT ZG3Z	't SOUTH OF 9	E COHWY DYLWI	THE BOTH HURIZONTWI
		A CHECKING	
9:45A,M. OBSERVE	TR STARTED	TO LOOK FOR	R REPAIR AREA.
9150 AIMI PERRY	ARRIVED O	NSITE.	
10100 AM. ADAMA	RRIVEDONS	ITE WITH KOL	BELCO SK85 CS MINI
EXCAUATOR	& CASE TR34	D TRACKED S	KIDLONDER FOR EQUIPMENT
PERRY WEN	T TO HELP A	DAM LINCOND	EQUIPMENT.
			4139 SEE PILTURE PORDETHIS
10117AM PICTURE#			
10170AM, OBSERVER	SHOT CULU	BRT, BEEHIVE	INTAKE IN NORTH
AND SOUTH E	ITCH OF COHW	VOUL & SINK	HOLE IN NORTH
SHOULDER O	F COHWY DO	4/,	
10125 AM, UPON FU	WIHER INVEST	FIGATION SINK	HOLE IN NORTH SHOULDER
			7' & SOUTH OF NORTH
			- ISSUE (COUNTY ROAD
DEPARTMENT	الــــــــــــــــــــــــــــــــــــ	J17	
I Certify that the work described in the	ns report was incorporate		otherwise noted.
	m Pensang	Date Prepared:	07/13/2020
Reviewed by:		Engineer	11
			Date Reviewed

CONSTRUCTION ENGINEERING OBSERVATION REPORT	DATE:	07/13/2020
PROJECT NUMBER: HAROW DO WO #Z		SOTWIFS
COUNTY, ROUTE, ROAD: 538.5 & ENSTO	SHEEL NO.	Z OF 2
LOCATION: 35-88-27 NW/4NW/4 TWUES BLOWDER SOUTH DITCH EN 18"BEEMINE INTAKE	MIOFECOHWYDY/ UPPE	R 50'S TO MID 80'S WWY & BREEZY
DESCRIPTION OF WORK AND MATERIAL US	SED FOR EACH OPERATION,	INCLUDING CONTRACTOR/SUB/
4142 SEE PLUTURE FOR	AVAN PICTURE #4141	& 11108AM, PLOTERS#
11:30 A.M. CREW LEFT	CITE MA COT PUR	
11:32 AM PICTURE #41	44 11:45 AM P	CLIES FOR REPAIR
PICTURE # 4147 5	EF BUTURE FOR D	MURE# 1140, 11.46 mm.
140 BM CREW BACKONS	ITE WITH SUPPLIES	einis.
1146 P.M. PICTURE#4148, 1:56 P.	CTUREST 4149 1159 PICTURE	HYICA COS ALTERS CO ANTONIO
2:15 PM PLUMBEH 4151 & Z	135 PHILEE # 4150	SEE PICTURE POR DE PORTE,
2:30 PM OBSERVER AND CREU	N CEFTSITE	- TO CASE CONCUENTE,
QUANTITIES PERRY,	150 - 1130 1110 - 2",30	3 HOURS GETTINGSUPPLIES
	K 85 CS MINI EXCAVATO	
	O TRACKED SKID LOAD	
Z.4 LFOF 6" HOPE S	WPERFTILE, 6"HOPE	SNIERWAL SNAP COUPLER
5- 1.5' XZ, D' ENGLINE	RFuence B 3-2	10 × 15 6 " 111 co
VIRE MESH,	8. 5-60 16 BAGS QUICK	DEFE MIGH STRENGTH CONCRETE
our of or	340 18" BERHIVE N KIM	- MIX
•	X 341 TOP 18" RCP 1. 71 TO	
Co. they	339 65 Blowner SHOWD	ER
A	338 TOP 18"CMP 1.59"	
- N	100 100 100 CMF 1157	TOP TOPU.
2.4 LF. OF NEW 6th		
MARTH RIM	"HOPE PERFTILE	
337 HOPE SHITTER	OPSH 34Z TOP 6" CLA	EIST N 6
CONVY \$27	0.57 TAP 70	E 127+15509
6" cuty	EMSTING HOPE TWIERE EXISTENCE COSESSES TOP G"X6"X6"X6"	ML COUPLER LEXISTING)
115 "x ZIO" FABRIC	O. SE TOP TOPL	(3.3'±06EP)
Certify that the work described sauther wind masty	COrporated into this contract unla	SS otherwise noted 3.3't DEEP
Observer's Signature:	Date Prepared:	
Observer's Signature:	Engineer	67/13/2020
-	Cugineer	Date Reviewed
		Exame INC VIC WOLL

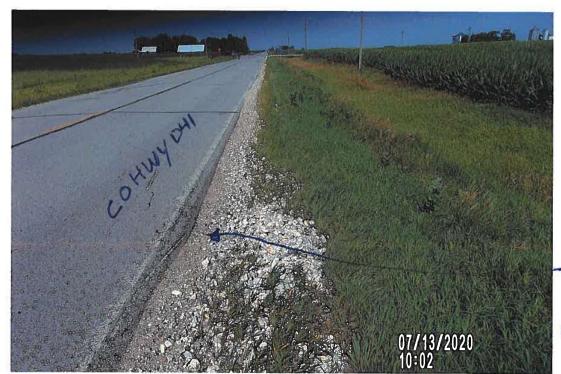
PICTURE # 4138 IS LOOKING EAST SHOWING SMALL

SINKHOLE ON EAST SIDE OF BEEHIVE INTAKE PER RANDYS REPORT

AREA LOOKED LIKE IT HAD BEEN EXCAVATED AT ONE TIME



CPS# 337
18"BEEHIVE
INTAKE
N RIM



N

BRAVEL SHOULDERS WITH FRESH ROCK

PICTURE#4139 IS LOOKING WEST ON WORTH SHOULDER.

OF COHWY DY I SHOWING SINK HOLE PER RANDY'S REPORT

WITH A LITTLE DIP IN ACC & GRAVEL AND APPEARS SOMEONEHAS

PUT FRESH ROCK IN SUCK HOLE.

PICTURE# 4140 IS LOOKING NORTH TOWARDS & OHWY D41

SHOWING 18"CMP OUTLET FOR WIVERT UNDER CO HWY D41

8. 18" BEEHWE INTAKE IN SOUTH DITCH OF COHWY D41 WITH SINKHWEE

CPS#337 NRM BEEKING INTAKE

CPS#337 NRM BEEKING INTAKE

(PS#338 TOP 18"CMP TO EAST.

1.54" TOP TOP



SWKHOLE ENST OF BEEHIVE INTAKE



PICTURE# 4141 IS LOOKING EAST ON EAST SIDEOF

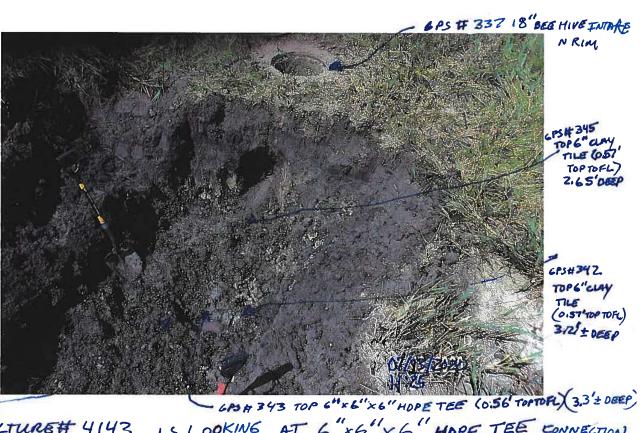
BEEHIVE INTAKE SHOWING 6" HOPE PERF TILE CONNECTION

TO 6" CLAY TILE OUTLET EAST FROM BEEHIVE INTAKE,

N

PILTURE# 4142 IS LOOKING SE SHOWING 6"HOPE PERF TILE CONNECTION TO 6"CLAYTILE EAST OF BEEHIE INTAKE. PICTURE SHOWS CREW EXCAVATING TO CHECK



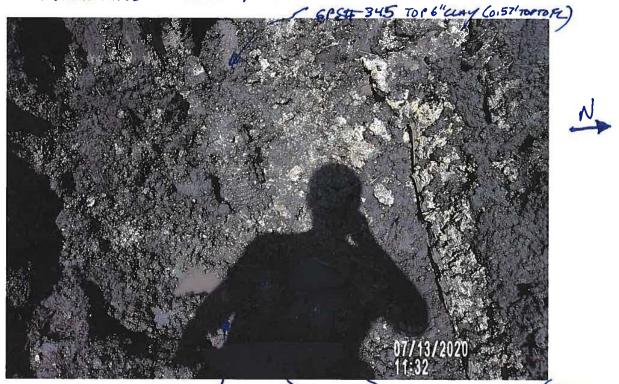


6PS# 344 (0.56 TOP TOFL)

(33'+ DEEP) PILTURE# 4143 IS LOOKING AT 6"X6"X6" HOPE TEE CONNECTION

WITH 6 HOPE / 6" CLAY CONNECTION DAMAGE AND NEEDS REPLACED

PILTURE # 4144 IS LOOKING WEST SMOWING 6"x6"6"
HOPE TEE CONNECTION & 6" HOPE PERF TILE / 6" KERAY TILE
WITH ISSUE BETWEEN PLASFILL CLAYTILE



GPS # 342 TOP 6" EN MOPE (0.57" TOP TOFC)

GPS # 343 TOP 6" 16" MOPE (0.56" TOP TOFC)





PICTURE# 4145 IS LOOKING SW ON SOUTH SIDE OF COHWY D41
SHOWENE DUTCH GRADED TO INTAKE & TRENCH BACKFILL &
GRADED, EXTRA SOIL PILED UP, BLEND EXTRA SOIL AROUND

PHETURE #4147 IS LOOKING WEST SHOW ING WORTH DITCH GRADED MBOVE TRENCH







615# 346 TOP C"HOPE PERFTILE

6"HOPE

2.4 LF

PICTURE# 4148 CONFIRM TILE

IS COOKING NE SHOWING 6" HOPE PERFTILE

THE WITH SLIDE INTO TEE & TIED UPSTREAM INTO GULAGTILE WATH PICTURE # 4149 IS LOOKING SW SHOWING MCONCRETE COLLAR

POURED ON BEEHIVE INTAKE TILE OUTLET TIE IN WITH

3-20XIS '6"x6" WIRE MESHES OVER JUINTS & \$3-1.5 × 20'

FORWAGER PARTY OVER JUINTS WITH 5-60 LB BAGS OF HIGH STRONGHY

CONCRETE

ENTRATER WAS FARRIC OVER TOWNS WITH 5-60 IR BASS DE MISH STROWN CONRECTE TO THE STROWN STROWN



PILTURETH 4150 IS LOOKINGSE SHOWANG: 3/4 CONCRETE COLLAR POURED OVER BEEHIVE OUT LET: TILE TIE IN CONVECTION.

N

GRADED TO BEEHIVE INTAKE







N

PICTUREH 4152 IS LOOKING NORTH SHOWING TREWEH BACKFILLED EAST OF EAST ROW COHWY \$27 & SOUTH 041 IN WETCAND DUE BY PREVIOUS GONTRACTOR

PEARPOINT'

WRc MSCC Third Edition

Inspection Report

Produced on behalf of – HARDIN CO Site location – , Survey reference – Date – 080720

WILLIAMS UNDERGROUND SVCS.

102 INDUSTRIAL DRIVVE, ACKLEY, IOWA
50601,
641-485-3925

PEARPOINT'

Contents

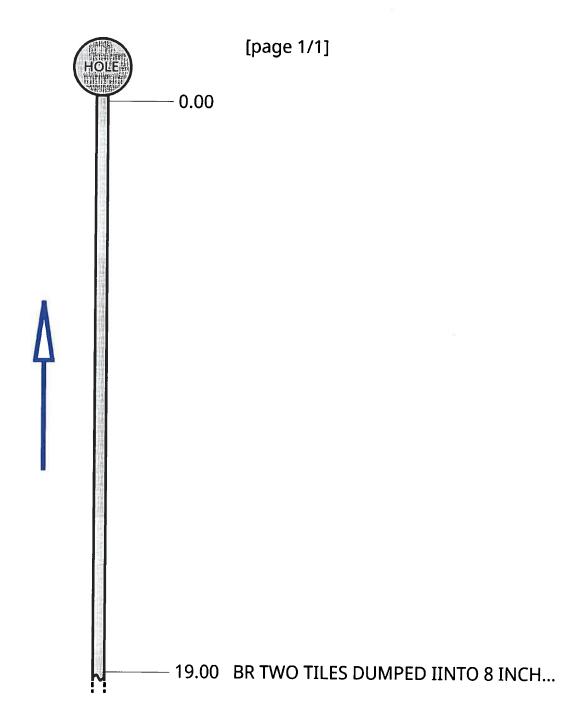
1	Drain / Sewer Survey	Error! Bookmark not defined
1.1	Site information	Error! Bookmark not defined.
1.2	Drain / Sewer Details	Error! Bookmark not defined.
1.3	Survey Details	Error! Bookmark not defined.
1.4	Drain / Sewer Diagram	Error! Bookmark not defined.
1.5	Observations	Error! Bookmark not defined.
1.6	Photographs	Error! Bookmark not defined.
2	Drain / Sewer Survey	Error! Bookmark not defined.
2.1	Site information	Error! Bookmark not defined.
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2.3	Survey Details	Error! Bookmark not defined.
2.4	Drain / Sewer Diagram	Error! Bookmark not defined.
2.5	Observations	Error! Bookmark not defined.

1 Drain / Sewer Survey

1.1 Survey Header

1.1.1	Surveyed by (Operator)	PAUL
1.1.2	Contract no.	A STREET OF THE PROPERTY OF TH
1.1.3	Job no.	The following serving a distance of the distan
1.1.4	Catchment (Drainage area)	DD14
1.1.5	Division	LAT 2
1.1.6	District	
1.1.7	Pipeline length ref	1000
1.1.8	Date	080720
1.1.9	Time	13:16
1.1.10	Location	
1.1.11	Start manhole no.	HOLE #254
1.1.12	Start depth	M
1.1.13	Start cover level	
1.1.14	Start invert level	
1.1.15	Finish manhole no.	
1.1.16	Finish depth	M
1.1.17	Finish cover level	THE PART AND ADDRESS AND ADDRE
1.1.18	Finish invert level	
1.1.19	Use of Drain	Ex Information for the Control of th
1.1.20	Direction	U support of the control of the cont
1.1.21	Size 1 (diameter/height)	8mm
1.1.22	Size 2 (width)	mm
1.1.23	Shape	C
1.1.24	Material	VC
1.1.25	Lining	
1.1.26	Pipe length	m
1.1.27	Total length	
1.1.28	Year laid	
1.1.29	Video cassette number	
1.1.30	Comments: General	
1.1.31	Purpose	
1.1.32	Sewer category	
1.1.33	Pre-cleaning	
1.1.34	Weather	
1.1.35	Location code	
1.1.36	Further location details	TO THE RESIDENCE OF THE ASSESSMENT OF A SECOND PROCESSOR OF THE ASSESSMENT OF A SECOND PROCESSOR OF THE ASSESSMENT OF TH

1.2 Diagram



1.3 Observations

Video Ref	Dist (ft)	Cont Defect	Code	Photo Ref	Diameter/ Clock Intrusion Dimension At To % mm	Clock		ck Intrusion		
		Defect	Code	Prioto nei		Remarks				
0:00:00	19.0		BR	2020_07_08- 13_30_01_583.jpg	4	09	03			TWO TILES DUMPED IINTO E INCH CLAY TILE

1.4 Photographs

BR 2020_07_08-13_30_01_583.jpg



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1	Drain / Sewer Survey	Error! Bookmark not defined
1.	1 Site information	Error! Bookmark not defined.
1	2 Drain / Sewer Details	Error! Bookmark not defined.
1	3 Survey Details	Error! Bookmark not defined.
1.4	4 Drain / Sewer Diagram	Error! Bookmark not defined.
1.	5 Observations	Error! Bookmark not defined.
1.6	6 Photographs	Error! Bookmark not defined.
2	Drain / Sewer Survey	Error! Bookmark not defined.
2.	1 Site information	Error! Bookmark not defined.
2.2	2 Drain / Sewer Details	Error! Bookmark not defined.
2.3	3 Survey Details	Error! Bookmark not defined.
2.4	4 Drain / Sewer Diagram	Error! Bookmark not defined.
2.5	5 Observations	Error! Bookmark not defined.
2.6	6 Photographs	Error! Bookmark not defined.

1 Drain / Sewer Survey

1.1 Survey Header

1.1.1	Surveyed by (Operator)	PAUL
1.1.2	Contract no.	6844.5
1.1.3	Job no.	W/O 292
1.1.4	Catchment (Drainage area)	DD14
1.1.5	Division	1 To a separate residence in the control of the con
1.1.6	District	LAT 2
1.1.7	Pipeline length ref	1000
1.1.8	Date	080720
1.1.9	Time	13:39
1.1.10	Location	TO COMPANIES AND
1.1.11	Start manhole no.	TOTAL OF TREPHASING BASE IN THE STATE OF THE
1.1.12	Start depth	The state of the s
1.1.13	Start cover level	The state of the s
1.1.14	Start invert level	18 (GANDAR (PCT) 3 (MM) 17 (MM) 3 (MM) 17 (MM) 3 (MM) 18 (MM)
1.1.15	Finish manhole no.	
1.1.16	Finish depth	m
1.1.17	Finish cover level	
1.1.18	Finish invert level	
1.1.19	Use of Drain	
1.1.20	Direction	D
1.1.21	Size 1 (diameter/height)	8mm
1.1.22	Size 2 (width)	mm
1.1.23	Shape	
1.1.24	Material	VC
1.1.25	Lining	
1.1.26	Pipe length	
1.1.27	Total length	
1.1.28	Year laid	
1.1.29	Video cassette number	
1.1.30	Comments: General	
1.1.31	Purpose	The state of the s
1.1.32	Sewer category	
1.1.33	Pre-cleaning	
1.1.34	Weather	
1.1.35	Location code	
1.1.36	Further location details	and finds of the state of the s

1.2 Observations

Video Ref Dist (ft)	Cont Co	Code	Photo Ref	Diameter/		Clock	Intrusion	Domada	
	Defect	Jour	I Hoto Her	Dimension	At	То	%	mm	Remarks

PEARPOINT

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1.4	Drain / Sewer Diagram	Error! Bookmark not defined.
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1.6	Photographs	Error! Bookmark not defined.
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2.1	Site information	Error! Bookmark not defined.
2.2	Drain / Sewer Details	Error! Bookmark not defined.
2.3		
2.3	Survey Details	Error! Bookmark not defined.
2.3		•
	Drain / Sewer Diagram	Error! Bookmark not defined.

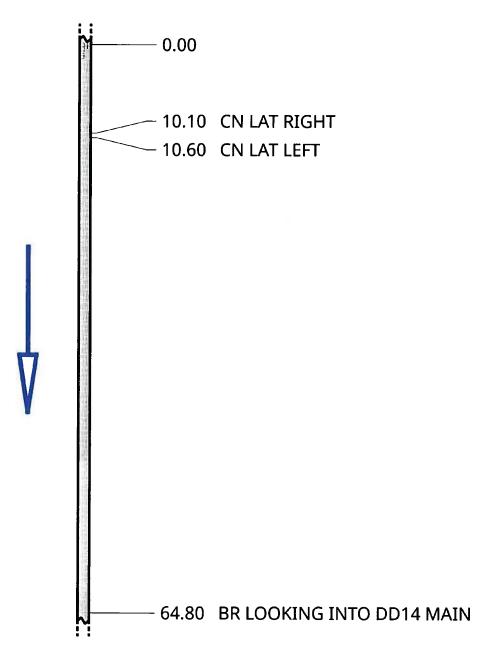
1 Drain / Sewer Survey

1.1 Survey Header

1.1.1	Surveyed by (Operator)	PAUL
1.1.2	Contract no.	66844.5
1.1.3	Job no.	W/O 292
1.1.4	Catchment (Drainage area)	DD 14
1.1.5	Division	LAT 2
1.1.6	District	And product which a condition to talk it is not agree against
1.1.7	Pipeline length ref	1000
1.1.8	Date	080720
1.1.9	Time	14:00
1.1.10	Location	HOLE 255
1.1.11	Start manhole no.	The Control of the Co
1.1.12	Start depth	TO PERSONAL PROPERTY OF THE PR
1.1.13	Start cover level	A STATE OF THE PROPERTY OF THE
1.1.14	Start invert level	OF Journal of the Section of the Sec
1.1.15	Finish manhole no.	the second of the second secon
1.1.16	Finish depth	The state of the s
1.1.17	Finish cover level	HERE THE EXPENSE OF SEATHER LIGHT SHARE OF THE RESIDENCE OF THE PROPERTY OF TH
1.1.18	Finish invert level	to Design a principle of the control
1.1.19	Use of Drain	EXAMPLE COME TO THE PROPERTY OF THE PROPERTY O
1.1.20	Direction	TO THE PROPERTY OF THE PROPERT
1.1.21	Size 1 (diameter/height)	8mm
1.1.22	Size 2 (width)	mm
1.1.23	Shape	C SAND STATE OF THE STATE OF TH
1.1.24	Material	VC
1.1.25	Lining	The Secretary of the se
1.1.26	Pipe length	and proposition or record in the control of the con
1.1.27	Total length	TO PROPERTIES TO AND
1.1.28	Year laid	or of all fillings and a state of the state
1.1.29	Video cassette number	The second section is a second section of the second second second section of the second secon
1.1.30	Comments: General	TO POPE SERVICION OF THE POPE OF THE POP OF THE
1.1.31	Purpose	TO BE THE THE THE THE THE THE THE THE THE TH
1.1.32	Sewer category	The second of the second secon
1.1.33	Pre-cleaning	TO THE CONTROL OF THE STATE OF
1.1.34	Weather	THE PROPERTY OF THE PROPERTY O
1.1.35	Location code	Septiminal Control of the Control of
1.1.36	Further location details	THE VEHICLE OF STREET CHARGE CHARGE CONTROL OF STREET CHARGE CONTROL OF

1.2 Diagram

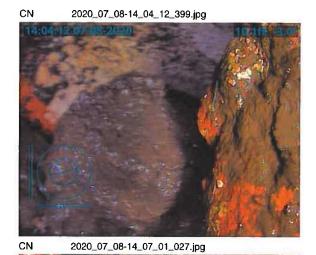




1.3 Observations

Video Ref	Diet (ft)	Cont	Code	Photo Ref	Diameter/	Clock		Intru	sion	
rideo nei	Dist (iii)	Defect	Code	Filoto Nei	Dimension	At	То	%	mm	Remarks
0:00:00	10.1		CN	2020_07_08- 14_04_12_399.jpg	4	02				LAT RIGHT
0:00:00	10.6		CN	2020_07_08- 14_07_01_027.jpg	4	08				LAT LEFT
0:03:32	64.8		BR	2020_07_08- 14_13_23_027.jpg	?					LOOKING INTO DD14 MAIN

1.4 Photographs





```
1,3603240.750,4962602.710,1176.370,HC GPSMON 8026
2,3603240.750,4962602.710,1176.370,Autonomous Setup
3,3618688.957,4946916.051,1169.764,HC GPS 8016
4,3605705.123,4952677.153,1135.516,TOP 12"VCP JOINT 1.06'TOP TO FL
5,3606415.768,4950139.889,1135.574,GS TILE BLOWOUT N SIDE
6,3606436.207,4950151.534,1135.854,GS TILE BLOWOUT N SIDE
7,3606433.594,4950154.282,1135.676,GS TILE BLOWOUT N SIDE
8,3606806.866,4950366.902,1140.171,FENCE E-W
9,3606807.989,4950160.633,1143.206,FENCE E-W
10,3606808.684,4950069.741,1147.297,FENCE E-W
11,3606418.172,4950139.776,1130.823,TOP 15" VCP TILE JOINT (1.35'TOPTO FL)
12,3606416.527,4950138.554,1130.832,TOP 15" TILE (1.35' TOP TO FL
13,3606433.374,4950151.026,1130.931,TOP 15" TILE (1.30' TOP TO FL
14,3606431.767,4950149.817,1130.912,TOP 15" TILE (1.35' TOP TO FL
15,3606430.189,4950148.568,1130.898,TOP 15" TILE (1.33' TOP TO FL
16,3605706.138,4952688.229,1139.481,GS
17,3605704.925,4952670.361,1139.347,GS
18,3605480.270,4952811.838,1148.799,FENCE E-W
19,3605485.212,4952217.754,1137.030,FENCE E-W
20,3608115.762,4952199.343,1155.903,MAG NAIL
21,3605484.284,4952146.915,1142.370,SURVEY MARK NAIL
22,3606802.079,4952129.144,1147.964,FENCE S&W
23,3608053.507,4952267.497,1152.132,CPT 34 IR 0.2'D
24,3607989.169,4950926.173,1140.628,TOP EXISTING 15"CMP
25,3608049.542,4950961.076,1141.017,TOP 14" VCP (1.17'TOPTOFL)
26,3608053.288,4950963.091,1140.699,TOP 14" VCP (0.96'TOPTOFL)
27,3607983.653,4950923.063,1140.661,TOP 14" VCP (1.21'TOPTOFL)
28,3608080.752,4950995.945,1141.522,TOP EXISTING 15" SW HDPE TILE
29,3608083.253,4950994.402,1141.500,TOP 6"SW CPP (0.49'TOPTOFL)
30,3608092.799,4951005.494,1141.648,TOP 15" CMP (1.23' TOP TO FL)
31,3608077.605,4950993.300,1145.298,GS
32,3608060.368,4950969.312,1145.175,GS
33,3608037.548,4950953.803,1145.213,GS
34,3608015.699,4950941.810,1145.088,GS
35,3607980.101,4950921.322,1144.873,GS
36,3608000.481,4950932.767,1140.940,TOP 15" HDPE PERFTILE (0.67'NTOBELL)(1.35'TOPTO
FL)
37,3608084.607,4950949.402,1145.388,GS FIELD/DITCH
38,3608084.599,4950983.584,1145.143,GS FIELD/DITCH
39,3608082.212,4951024.307,1146.627,GS FIELD/DITCH
40,3608100.133,4950999.532,1145.416,FL 4'*2'TALL CONC BOX
41,3608089.162,4950987.889,1148.373,TOP 6" HICKENBOTTOM INTAKE (6.31' TOP TO FL)
42,3608017.662,4950942.112,1141.078,T0P 15" HDPE PERF TILE (1.35'TOPTO FL)
43,3608034.233,4950952.510,1141.216,T0P 15" HDPE PERF TILE (1.35'TOP TO FL)
44,3608051.197,4950962.357,1141.350,TOP 15" HDPE TILE (1.35'TOPTOFL
45,3608033.829,4950950.107,1140.548,T0P 6" PERF TILE (0.51'TOPTO FL)
46,3608034.571,4950947.776,1140.544,T0P 6" PERF TILE (0.51'TOPTO FL)
47,3608034.608,4950940.382,1140.602,TOP 6" PERF TILE (0.51'TOPTO FL)
48,3608034.739,4950934.740,1140.530,TOP 6" PERF TILE (0.51'TOPTO FL)
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49,3608034.707,4950928.336,1140.460,TOP 6" PERF TILE (0.51'TOPTO FL)
50,3608034.827,4950922.605,1140.417,T0P 6" PERF TILE (0.51'TOPTO FL)
51,3608128.896,4949539.459,1151.696,MAG NAIL
52,3608060.852,4950968.394,1141.418,TOP 15" HDPE TILE 22.5BEND (1.35'TOPTO FL)
53,3608066.056,4950977.043,1141.487,TOP 15" DW HDPE TILE (1.35'TOPTOFL)
54,3608077.936,4950992.725,1141.629,TOP 15" DW HDPE TILE (1.35'TOPTOFL)
55,3608086.285,4951003.294,1141.742,TOP 15" DW HDPE TILE 22.5 BEND (1.35'TOPTOFL)
56,3608091.951,4951005.247,1141.780,TOP 15"*15"*15" HDPE WYE
57,3608081.157,4950995.861,1141.444,TOP 6" HDPE SADDLE TAP
58,3608081.696,4950995.452,1141.576,TOP 6" HDPE EXTERNAL COUPLER
59,3608085.434,4951011.982,1145.974,GS
60,3608089.265,4950998.392,1145.365,GS
61,3608034.172,4950949.577,1140.537,TOP 6" PERF TILE (0.51'TOPTO FL)
62,3608033.230,4950951.027,1140.591,TOP 6" DW TILE (0.55'TOPTO FL)
63,3608079.348,4951335.208,1151.564,GS BEAN DAMAGE
64,3608033.743,4951335.117,1150.834,GS BEAN DAMAGE
65,3608046.530,4951310.109,1150.762,GS BEAN DAMAGE
66,3608057.991,4951262.988,1149.769,GS BEAN DAMAGE
67,3608057.119,4951206.321,1148.555,GS BEAN DAMAGE
68,3608053.376,4951189.795,1148.130,GS BEAN DAMAGE
69,3608051.635,4951142.339,1147.931,GS BEAN DAMAGE
70,3608031.595,4951129.695,1147.612,GS BEAN DAMAGE
71,3608031.998,4951105.324,1147.754,GS BEAN DAMAGE
72,3608050.176,4951073.771,1147.711,GS BEAN DAMAGE
73,3608049.722,4951053.602,1147.324,GS BEAN DAMAGE
74,3608036.030,4951011.428,1146.382,GS BEAN DAMAGE
75,3608019.553,4951003.326,1146.204,GS BEAN DAMAGE
76,3608020.181,4950994.983,1146.039,GS BEAN DAMAGE
77,3607959.756,4950955.599,1145.266,GS BEAN DAMAGE
78,3607940.555,4950929.442,1144.729,GS BEAN DAMAGE
79,3607940.652,4950910.000,1144.641,GS BEAN DAMAGE
80,3607979.594,4950877.412,1144.902,GS BEAN DAMAGE
81,3608039.390,4950886.414,1145.489,GS BEAN DAMAGE
82,3608085.975,4950915.943,1145.790,GS BEAN DAMAGE/DITCH
83,3608081.452,4951072.899,1147.693,GS BEAN DAMAGE/DITCH
84,3608081.095,4951139.433,1148.235,GS BEAN DAMAGE/DITCH
85,3608081.027,4951239.536,1149.007,GS BEAN DAMAGE/DITCH
86,3608079.743,4951304.686,1150.586,GS BEAN DAMAGE/DITCH
88,3608087.940,4951003.741,1145.460,CENTER ACCESS CASTING
89,3608176.604,4951135.886,1148.318,gs wl locate 93"d
90,3608176.050,4951076.885,1146.497,gs wl locate 112"d
91,3608175.129,4951061.949,1146.637,gs wl locate 108"d
92,3608173.187,4951047.397,1146.547,gs wl locate 105"d
93,3608172.919,4951040.333,1146.503,gs wl locate 101"d (15" tile)
94,3608172.828,4951032.374,1146.529,gs wl locate 108"d
95,3608160.046,4951031.601,1145.991,wws ciwa stamp 13N (TILE LINE BELOW)
96,3608176.411,4951123.190,1149.042,GS CL 20825 CO HWY S27 GRAVEL DRIVE ABOVE WL
100,3608173.775,4951794.097,1142.090,TOP WATERMAIN
101,3608172.970,4951806.421,1144.607,TOP 14"CLAY
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102,3606801.876,4950336.843,1134.500,TOP 15" CLAY 1.38' TOPTOFL
103,3606776.447,4950322.423,1139.240,GS ABOVE TILE
104,3606801.246,4950330.369,1139.443,GS
105,3606785.751,4950322.663,1139.572,GS
106,3606781.230,4950330.843,1139.443.GS
107,3606800.988,4950343.062,1139.717,GS
108,3606806.097,4950348.422,1140.101,FENCE E-W
109,3606806.277,4950329.481,1140.050,FENCE E-W
110,3606812.666,4950342.795,1139.661,GS
111,3606808.337,4950339.736,1138.919,GS
112,3606784.008,4950326.675,1134.306,TOP 15" CLAY 1.31' TOPTOFL
113,3606784.164,4950326.703,1134.338,TOP 15" HDPE PERF TILE
114,3606798.454,4950335.076,1134.431,TOP 15" HDPE PERF TILE
115,3606801.757,4950336.845,1134.463,TOP 15" HDPE PERF TILE
116,3605345.937,4950152.361,1122.926,GS ABOVE TILE
117,3605340.655,4950146.152,1122.854,GS ABOVE TILE
118,3605342.974,4950149.013,1120.006,TILE TOP 14.25*17.25" SQUAT CLAY (1.25'TOP TO
FL)
119,3605344.620,4950151.047,1120.026,TILE TOP 14*17" SQUAT CLAY (1.22'TOP TO FL)
120,3605385.960,4950177.421,1123.131,GS ABOVE TILE
121,3605379.508,4950173.853,1123.177,GS ABOVE TILE
122,3605414.981,4950167.886,1124.101,GS WATERWAY
123,3605371.837,4950148.276,1123.621,GS WATERWAY
124,3605332.279,4950112.525,1122.863,GS WATERWAY
125,3605309.994,4950133.091,1122.804,GS WATERWAY
126,3605355.127,4950171.596,1123.269,GS WATERWAY
127,3605414.606,4950191.842,1123.890,GS WATERWAY
128,3605452.781,4950199.659,1124.464,GS TILE LOCATE
129,3605507.884,4950208.120,1125.500,GS TILE LOCATE
130,3605566.488,4950211.914,1125.840,GS TILE LOCATE
131,3605624.107,4950214.918,1126.524,GS TILE LOCATE
133,3605683.158,4950217.229,1126.920,GS TILE LOCATE
134,3605750.126,4950216.561,1127.637,GS TILE LOCATE
135,3605805.896,4950206.324,1128.247,GS TILE LOCATE
136,3605869.322,4950185.200,1128.558,GS TILE LOCATE
137,3605907.201,4950164.902,1128.683,GS TILE LOCATE END CAMERA
138,3605951.503,4950135.957,1125.608,TILE TOP 12*19" SQUAT CLAY (1.09'TOP TO FL)
REMOVED
139,3605948.015,4950138.425,1125.762,TILE TOP 13*18 SQUAT "CLAY (1.21'TOP TO FL)
REMOVED
140,3606002.087,4950097.117,1129.897,GS TILE LOCATE
141,3606047.969,4950060.252,1130.485,GS TILE LOCATE
142,3606093.946,4950024.079,1131.195,GS TILE LOCATE
143,3606148.452,4949995.916,1131.594,GS TILE LOCATE
144,3606194.832,4949987.959,1131.959,GS TILE LOCATE
145,3606198.408,4949987.796,1132.012,GS TILE LOCATE END LOCATE
146,3605911.704,4950162.539,1125.405,TILE TOP 15*17 " CLAY 1.32'TOPTOFL
147,3605913.527,4950161.426,1125.261,TILE TOP 12*19" SQUAT CLAY 1.05'TOPTOFL REMOVED
148,3605905.139,4950166.616,1128.680,GS ABOVE TILE
```

```
149,3605914.838,4950160.561,1128.801,GS ABOVE TILE
150,3605945.044,4950140.580,1129.365,GS ABOVE TILE
151,3605953.724,4950134.445,1129.394,GS ABOVE TILE
152,3605917.145,4950159.407,1125.461,TILE TOP 15.25*16" CLAY 1.34TOPTOFL
153,3605957.056,4950121.773,1129.527,GS WATERWAY
154,3605918.162,4950152.972,1128.826,GS WATERWAY
155,3605846.419,4950191.394,1128.563,GS WATERWAY
156,3605692.445,4950210.179,1127.221,GS WATERWAY
157,3605572.291,4950198.841,1126.518,GS WATERWAY
158,3605481.505,4950182.506,1125.016,GS WATERWAY
159,3605480.915,4950202.881,1124.880,GS WATERWAY
160,3605493.194,4950208.150,1125.264,GS WATERWAY
161,3605492.050,4950234.982,1126.183,GS WATERWAY
162,3605516.988,4950233.467,1126.920,GS WATERWAY
163,3605521.214,4950215.654,1126.130,GS WATERWAY
164,3605535.721,4950214.240,1126.077,GS WATERWAY
165,3605627.973,4950230.113,1126.487,GS WATERWAY
166,3605650.168,4950236.977,1126.710,GS WATERWAY
167,3605705.205,4950290.733,1127.666,GS WATERWAY
168,3605742.239,4950280.558,1127.890,GS WATERWAY
169,3605735.245,4950245.369,1127.709,GS WATERWAY
170,3605735.412,4950240.914,1127.535,GS WATERWAY
171,3605823.622,4950228.426,1127.666,GS WATERWAY
172,3605893.923,4950204.258,1128.704,GS WATERWAY
173,3605948.734,4950172.433,1129.588,GS WATERWAY
174,3606004.304,4950123.863,1130.051,GS WATERWAY
175,3605946.237,4950139.603,1125.854,TILE TOP 15*15.75" CLAY 1.36'TOPTOFL
176,3605953.253,4950134.826,1125.849,TILE TOP 15.75*16" CLAY 1.39'TOPTOFL
177,3605384.208,4950176.364,1120.543,TILE TOP 15*16.25" squat CLAY 1.35'TOPTOFL
178,3605382.068,4950175.088,1120.425,TILE TOP 14*17" squat CLAY 1.24'TOPTOFL
179,3605308.552,4950098.525,1122.265,GS TILE LOCATE
180,3605283.080,4950047.286,1121.952,GS TILE LOCATE
181,3605264.542,4949992.162,1121.779,GS TILE LOCATE
182,3605246.456,4949937.507,1121.209,GS TILE LOCATE
183,3605227.996,4949883.706,1120.689,GS TILE LOCATE
184,3605208.491,4949829.163,1120.112,GS TILE LOCATE
185,3605187.171,4949775.725,1119.631,GS TILE LOCATE
186,3605162.969,4949720.465,1119.157,GS TILE LOCATE
187,3605138.529,4949666.755,1118.794,GS TILE LOCATE
188,3605115.421,4949616.282,1118.212,GS TILE LOCATE
189,3605091.558,4949566.464,1118.417,GS TILE LOCATE
190,3605060.423,4949517.341,1118.346,GS TILE LOCATE
191,3605044.705,4949495.848,1118.377,GS TILE LOCATE
192,3605007.736,4949448.293,1116.480,GS TILE LOCATE
193,3604971.956,4949403.645,1115.997,GS TILE LOCATE
194,3604933.158,4949356.696,1115.465,GS TILE LOCATE
195,3604902.280,4949319.604,1115.271,GS TILE LOCATE END
196,3605007.109,4949493.659,1118.634,FNL N-S
197,3605066.434,4949494.540,1117.773,FNL N-S
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198,3606042.834,4950084.321,1130.491,GS WATERWAY
199,3606092.572,4950032.226,1130.980,GS WATERWAY
200,3606145.664,4950000.670,1131.473,GS WATERWAY
201,3606210.807,4949998.901,1132.203,GS WATERWAY
202,3606214.261,4949964.616,1132.458,GS WATERWAY
203,3606132.656,4949976.520,1131.497,GS WATERWAY
204,3606052.849,4950031.398,1130.741,GS WATERWAY
205,3605988.156,4950092.948,1129.841,GS WATERWAY
206,3605267.201,4950069.065,1122.129.GS WATERWAY
207,3605228.432,4949964.232,1121.465,GS WATERWAY
208,3605197.938,4949866.193,1120.875,GS WATERWAY
209,3605163.386,4949760.174,1119.578,GS WATERWAY
210,3605125.162,4949640.384,1118.926,GS WATERWAY
211,3605110.716,4949585.173,1118.333,GS WATERWAY
212,3605100.210,4949499.905,1117.402,GS WATERWAY
213,3605122.963,4949510.205,1118.127,GS WATERWAY
214,3605495.092,4949501.521,1129.346,FNL N-S&W
215,3605133.332,4949555.621,1118.404,GS WATERWAY
216,3605178.871,4949717.223,1119.920,GS WATERWAY
217,3605241.192,4949906.375,1121.016,GS WATERWAY
218,3605271.139,4950005.075,1121.944,GS WATERWAY
219,3605312.635,4950088.007,1122.763,GS WATERWAY
220,3605504.519,4950234.224,1126.183,Cogo
230,3608084.124,4951902.308,1147.445,W RIM BEEHIVE
231,3608089.801,4951888.318,1147.847,GS TILE LOCATE
232,3608104.983,4951879.465,1154.112,GS TILE LOCATE
233,3608106.624,4951878.417,1154.184,GS TILE LOCATE EOA
234,3608117.917,4951869.070,1154.547,GS TILE LOCATE CL
235,3608129.210,4951858.971,1154.234,GS TILE LOCATE EOA SOME RESISTENCE
236,3608146.621,4951845.243,1148.110,GS TILE LOCATE
237,3608161.933,4951817.422,1149.628,GS TILE LOCATE
238,3608165.220,4951813.473,1149.904,GS TILE LOCATE FIELD EDGE
239,3608168.579,4951809.460,1149.604,GS TILE LOCATE
240,3608178.369,4951801.269,1149.377,GS TILE LOCATE
241,3608188.241,4951791.528,1149.576,GS TILE LOCATE
242,3608209.740,4951773.387,1149.698,GS TILE LOCATE
243,3608231.610,4951755.411,1149.682,GS TILE LOCATE
244,3608253.737,4951735.679,1149.571,GS TILE LOCATE
245,3608280.557,4951712.028,1149.410,GS TILE LOCATE
246,3608284.668,4951708.431,1149.364,GS TILE LOCATE END OBSTRUCTION?
247,3608285.090,4951708.634,1144.232,TILE TO 14"CLAY 1.24'TOPTOFL
248,3608283.091,4951710.319,1144.305,TILE TO 14"CLAY 1.28'TOPTOFL
249,3608289.834,4951703.250,1149.599,GS
250,3608172.054,4951804.330,1145.918,TILE TOP 8" CLAY 0.72'TOPTOFL
251,3608170.627,4951805.930,1145.912,TILE TOP 8"CLAY 0.75'TOPTOFL
252,3608173.804,4951805.527,1144.706,TILE TOP 14" CLAY 1.38'TOPTOFL
253,3608174.204,4951808.223,1144.440,WM 1.38'GSTOTOP WM
254,3608084.572,4951892.856,1144.681,TILE TOP 8"CLAY 0.74'TOPTOFL
255,3608085.478,4951892.193,1144.745,TILE TOP 8"CLAY 0.74'TOPTOFL
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6844 DD14 2020-07-13DP.txt

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256,3607786.141,4952154.305,1148.855,GS SIGN TILE LINE
259,3608076.855,4951898.654,1148.210,GS TILE LOCATE
260,3608067.662,4951905.816,1148.319,GS TILE LOCATE OBSTRUCTION?
261,3608079.284,4951896.646,1149.016,GS EDGE FIELD
262,3608143.074,4951852.200,1148.498,GS APPROX TILE MAIN LAT 2 CONNECTION
263,3608067.743,4951910.457,1145.035,TILE TOP 5" HDPE PERF 0.43'TOPTOFL
264,3608059.621,4951902.767,1145.428,TILE TOP 4" HDPE PERF 0.34'TOPTOFL
267,3608069.254,4951904.084,1144.770,TILE TOP 8"CLAY 0.74'TOPTOFL
268,3608151.043,4952028.550,1147.989,INTAKE BEEEHIVE N RIM
269,3608148.458,4951824.752,1145.486,FL 6" HICKENBOTTOM INTAKE
270,3608356.513,4951135.356,1147.339,GS CORN DAMAGE 1
271,3608349.998,4951198.416,1147.156,GS CORN DAMAGE 1
272,3608342.105,4951272.849,1147.785,GS CORN DAMAGE 1
273,3608337.421,4951324.659,1148.118,GS CORN DAMAGE 1
274,3608335.119,4951375.990,1148.173,GS CORN DAMAGE 1
275,3608331.695,4951427.177,1148.383,GS CORN DAMAGE 1
276,3608329.218,4951534.790,1148.667,GS CORN DAMAGE 1
277,3608326.276,4951625.404,1149.140,GS CORN DAMAGE 1
278,3608306.692,4951650.463,1149.366,GS CORN DAMAGE 1
279,3608279.429,4951677.110,1149.468,GS CORN DAMAGE 1
280,3608259.987,4951696.313,1149.684,GS CORN DAMAGE 1
281,3608260.177,4951716.006,1149.489,GS CORN DAMAGE 1
282,3608166.019,4951798.622,1149.708,GS CORN DAMAGE 1
283,3608163.719,4951845.257,1149.910,GS CORN DAMAGE 1
284,3608193.655,4951845.248,1149.929,GS CORN DAMAGE 1
285,3608195.478,4951803.739,1149.599,GS CORN DAMAGE 1
286,3608270.710,4951727.264,1149.451,GS CORN DAMAGE 1
287,3608280.575,4951736.489,1149.435,GS CORN DAMAGE 1
288,3608292.462,4951732.982,1149.389,GS CORN DAMAGE 1
289,3608311.870,4951716.945,1149.271,GS CORN DAMAGE 1
290,3608312.299,4951692.591,1149.298,GS CORN DAMAGE 1
291,3608344.022,4951684.697,1149.142,GS CORN DAMAGE 1
292,3608344.617,4951440.966,1148.243,GS CORN DAMAGE 1
293,3608347.083,4951432.959,1148.166,GS CORN DAMAGE 1
294,3608349.318,4951400.370,1148.110,GS CORN DAMAGE 1
295,3608349.618,4951364.090,1148.024,GS CORN DAMAGE 1
296,3608352.051,4951359.720,1148.086,GS CORN DAMAGE 1
297,3608352.082,4951310.589,1148.041,GS CORN DAMAGE 1
298,3608357.674,4951281.382,1147.847,GS CORN DAMAGE 1
299,3608361.609,4951234.904,1147.412,GS CORN DAMAGE 1
300,3608368.174,4951167.004,1147.332,GS CORN DAMAGE 1
301,3608385.227,4951136.275,1147.398,GS CORN DAMAGE 1
302,3608064.858,4951907.140,1144.848,TILE TOP 8"CLAY 0.72'TOPTOFL
303,3608065.976,4951899.316,1145.016,TILE TOP 5" HDPE PERF 0.43'TOPTOFL
304,3608066.325,4951906.090,1144.804,TILE TOP 8"*8"*5" HDPE TEE
305,3608067.955,4951905.120,1144.767,TILE TOP HDPE 8"*8"*5" TEE
306,3608067.368,4951904.522,1144.650,TILE TOP 5" HDPE PERF @ TEE 0.43'TOPTOFL
307,3608066.483,4951902.291,1144.813,TILE TOP 5"*5"*4" HDPE TEE
308,3608066.794,4951906.637,1144.618,TILE TOP 5" HDPE PERF @ TEE 0.43'TOPTOFL
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309,3607822.096,4952238.535,1149.727,FNL N-S
310,3607798.155,4952237.894,1149.855,FNL N-S
311,3607793.814,4952247.403,1145.203,TILE TOP 8" HDPE NONPERF (HOLE)
312,3607794.478,4952141.899,1147.273,TILE TOP 4" HDPE PERF 0.32'TOPTOFL
313,3607784.928,4952141.448,1147.506,TILE TOP 4" HDPE PERF 0.36'TOPTOFL
316,3607789.071,4952140.770,1147.444,TILE TOP 4" HDPE PERF 0.38'TOPTOFL
317,3607786.252,4952141.423,1147.519,TILE TOP 4" HDPE PERF 0.38'TOPTOFL
318,3607792.952,4952141.702,1147.384,TILE TOP 4" HDPE PERF 0.38'TOPTOFL
320,3607772.108,4952149.515,1149.663,GS CORN DAMAGE 2
321,3607765.439,4952132.040,1149.471,GS CORN DAMAGE 2
322,3607766.323,4952110.312,1149.537,GS CORN DAMAGE 2
323,3607811.039,4952111.921,1149.513,GS CORN DAMAGE 2
324,3607818.925,4952152.088,1149.858,GS CORN DAMAGE 2
325,3607810.601,4952181.593,1154.265,EOA
326,3607748.957,4952180.166,1154.283,EOA
327,3607777.446,4952152.857,1148.859,INTAKE BEEHIVE N RIM
328,3607772.871,4952153.571,1149.545,GS SIGN TILE LINE
329,3607759.653,4952202.415,1154.498,EOA
330,3607835.381,4952204.204,1154.372,EOA
331,3608080.006,4951941.286,1148.184,GS CORN DAMAGE 3
332,3608057.015,4951932.847,1148.177,GS CORN DAMAGE 3
333,3608039.389,4951920.646,1148.462,GS CORN DAMAGE 3
334,3608040.271,4951891.508,1148.649,GS CORN DAMAGE 3
335,3608056.992,4951872.352,1148.722,GS CORN DAMAGE 3
336,3608078.679,4951872.507,1148.701,GS CORN DAMAGE 3
337,3608073.676,4952737.840,1148.917,INTAKE 18" BEEHIVE N RIM
338,3608084.796,4952746.455,1150.538,CMP TOP 18" 1.54'TOPTOFL
339,3608124.706,4952745.934,1155.472,GS BLOWOUT SHOULDER
340,3608147.597,4952746.884,1149.178,INTAKE 18" BEEHIVE N RIM
341,3608136.448,4952746.150,1151.386,RCP TOP 18" 1.71'TOPTOFL
342,3608073.094,4952744.578,1145.664,CLAY TOP 6" 0.57'TOPTOFL
343,3608072.372,4952744.584,1145.604,TEE TOP HDPE 6"*6"*4" 0.56'TOPTOFL
344,3608071.838,4952744.372,1145.598,TILE TOP 6" SW HDPE NONPERF 0.56'TOPTOFL
345,3608072.542,4952741.735,1146.267,TILE TOP 6" CLAY 0.57'TOPTOFL
346,3608072.419,4952743.936,1145.716,TILE TOP 4" CLAY 0.38'TOPTOFL
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Drainage District:

#14 Main and Lateral 2

Investigation/Repair Summary:

- Landowners and tenants in the NE% of Section 34 and NW% of Section 35, Township 88 North, Range 22 West reported restricted drainage at intersection of County Highways D41 and S27 along the assumed Main and Lateral 2 tile routes.
- Visual observation found all intakes on assumed Main tile and Lateral 2 tile routes in all 4 quadrants of the
 intersection to have standing water, but intakes on assumed Main tile route downstream of the road
 intersection appeared to be dry and functioning.

Contractor Time and Materials (spent while CGA was on-site):

None recorded as only visual observation was done.

Additional Actions Recommended:

Something at the road intersection is restricting drainage in at least the Main tile and possibly the Lateral 2 tile also. However, it is not clear how many restrictions there are or what constitutes those restrictions without excavation. It is recommended that excavations at the road intersection be performed using available contractors from the lottery system. It should also be noted that this area has had several utilities (i.e. rural water and others) installed in recent years which may or may not be contributing to the restricted drainage.



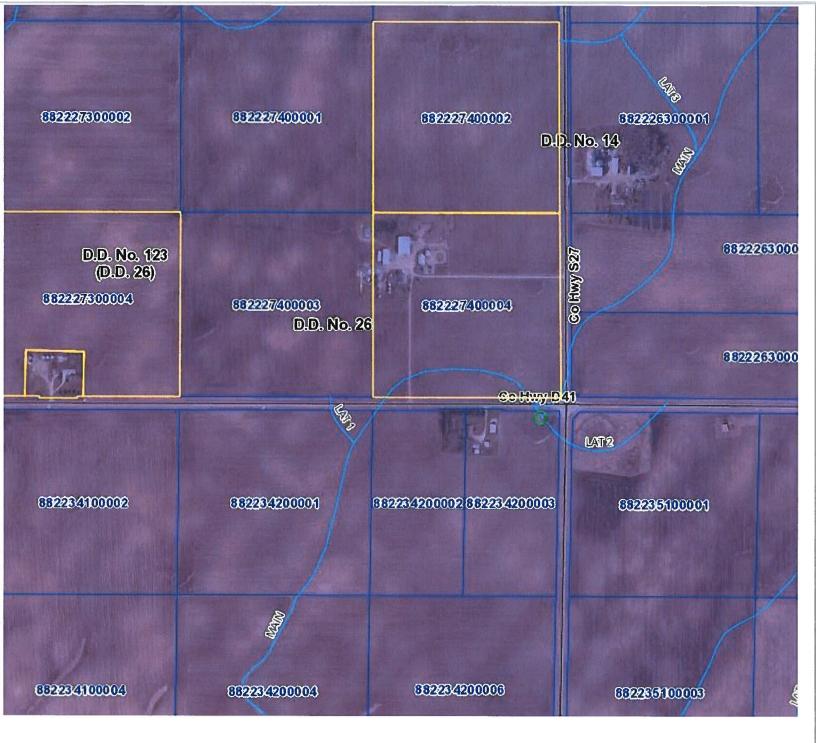


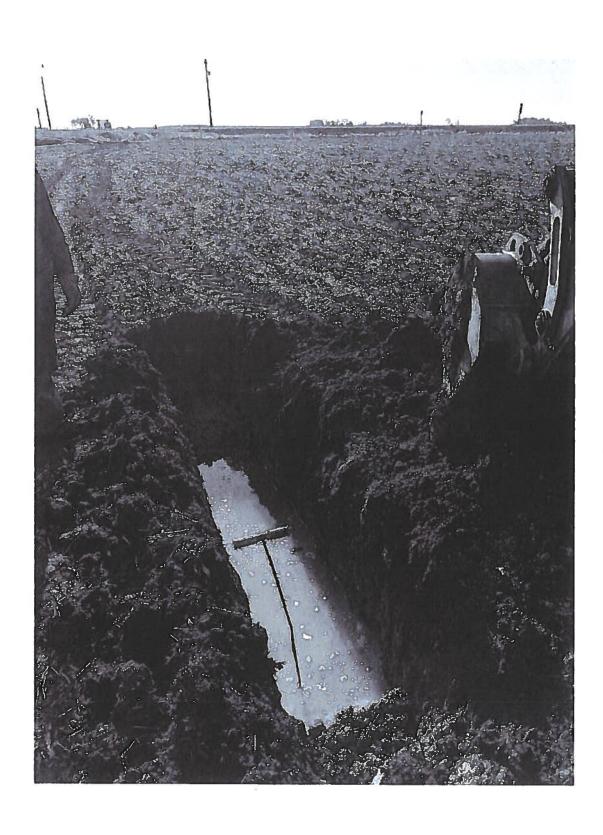
Drainage Work Order Request For RepairHardin County

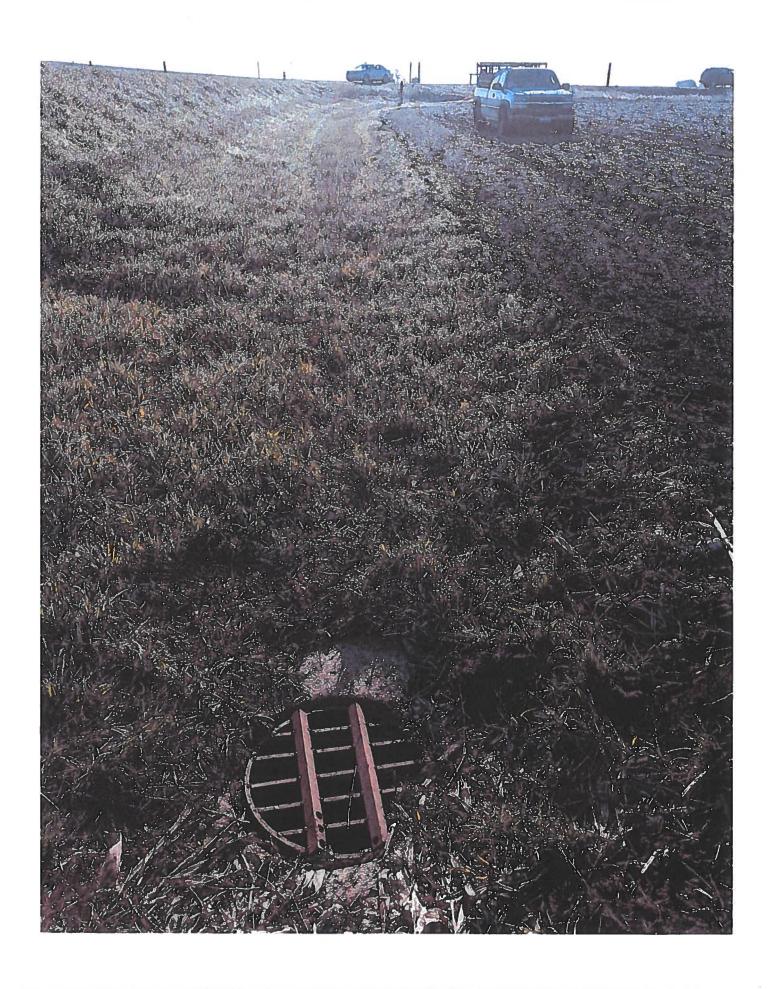
Date:	4/15/2020			
Work Order #:	WO0000291			
Drainage District:	DDs\DD 14 (51027)			
Sec-Twp-Rge:	34-88-22 Qtr Sec: E1/2 NE NE			
Location/GIS:	88-22-34-200-003			
Requested By:	James Sweeney/Cynthia loger/Jim & Ron Vierka	ndt		
Contact Phone:	(641) 847-3273			
Contact Email:	jsweeney@cgaconsultants.com	N N		
Landowner (if different):	Ron/Jim Vierkandt/Cynthia loger			
Repair labor, material	DD 14- Sweeney reports plugged main tile in Jim pothole/explore tile on S side of D41, likely main intersection where tile goes under road needs redownstream of intersection of Lat 2/main tile. Leto effectively farm area it should drain. Potholes not drain. Also, broken intake @ Lat 2 intersections and equipment:	n tile. Intake further E of D41 & S27 epair. See Add'l Req in docs- lack of drg ast 3 years, Lat 2 has lacked enough drg s dug by landowners in Sects 34/35 do		
Repaired By:		Date:		
Please reference work order # and send statement for services to:		Hardin County Auditor's Office Attn: Drainage Clerk 1215 Edgington Ave, Suite 1 Eldora, IA 50627 Phone (641) 939-8111 Fax (641) 939-8245		
For Office Use Only				
Approved:		Date:		



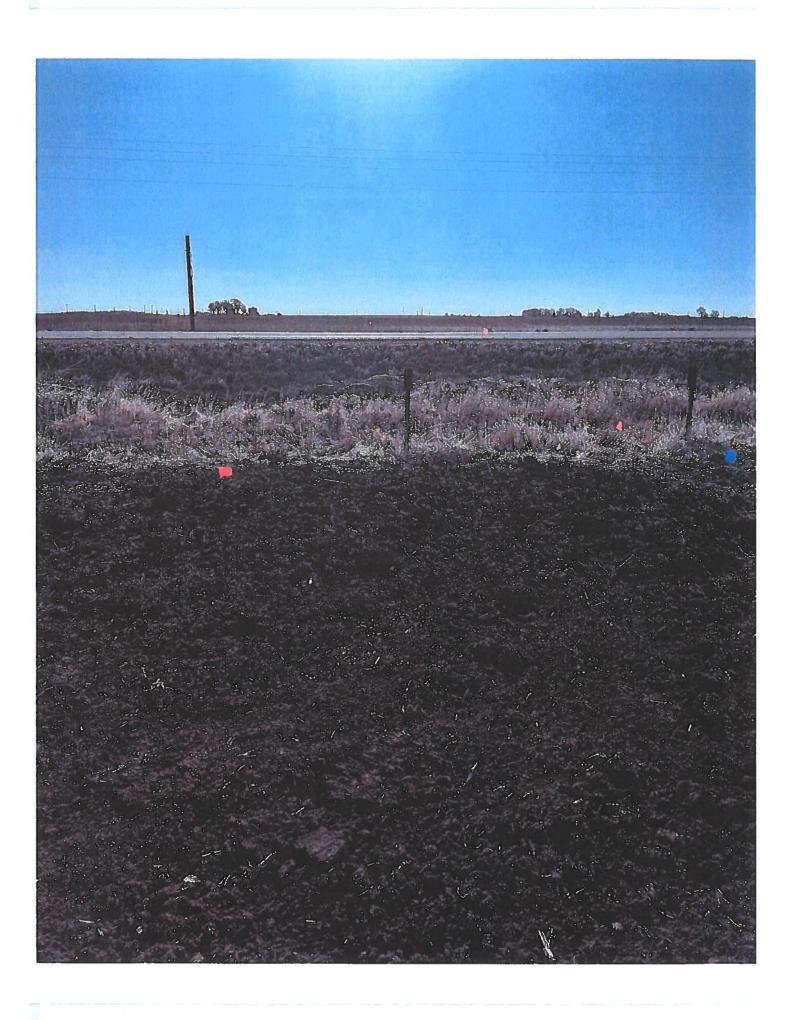
Date 4/20/2020				1	Work Order #
District # #14		Lateral La	at 2 & Main	Fund #	B-070-4-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0
Township		Section 27, 3 4	4, 35 _{WP} 88	Rge 22	Qtr Sec
Repair Requested By	Cynthia loerger, Ronald V	ierkandt, James \	/ierkandt		
Address	15898 Co Hwy D41			Phone	
Landowner	Same				
Address	Same			Phone	
Request Taken By					
Available for Repair N	√low? ☑ Yes		Dat	e Available	
Problem Description	There is a lack of drainage the intersection of Lateral 2 or so years the Lateral 2 ti effectively farm the area it were dug by the landowne water just sits in said holes	2 and the main tile le has lacked eno is supposed to dr ers in sections 34	e. Last three ugh drainage ain. Pot-holes and 35, and		
Repair labor, materia	Also, there is a broken inta D41 in section 35	ake where Lateral	2 intersects		
Potential Wetlands?	☐Yes-Repair existing tile on	nly (□No-Repair and ma	aintain tile	
Repaired By:					
Date:	-				
Please send statemen	nt for services to:	Hardin Cou Attn: Tina	unty Auditor's Office Schlemme	2	
Phone (641) 9		_	ngton Ave, Suite 1		
Fax (641) 939	-8245	Eldora, IA !	50627		For Office Use Only

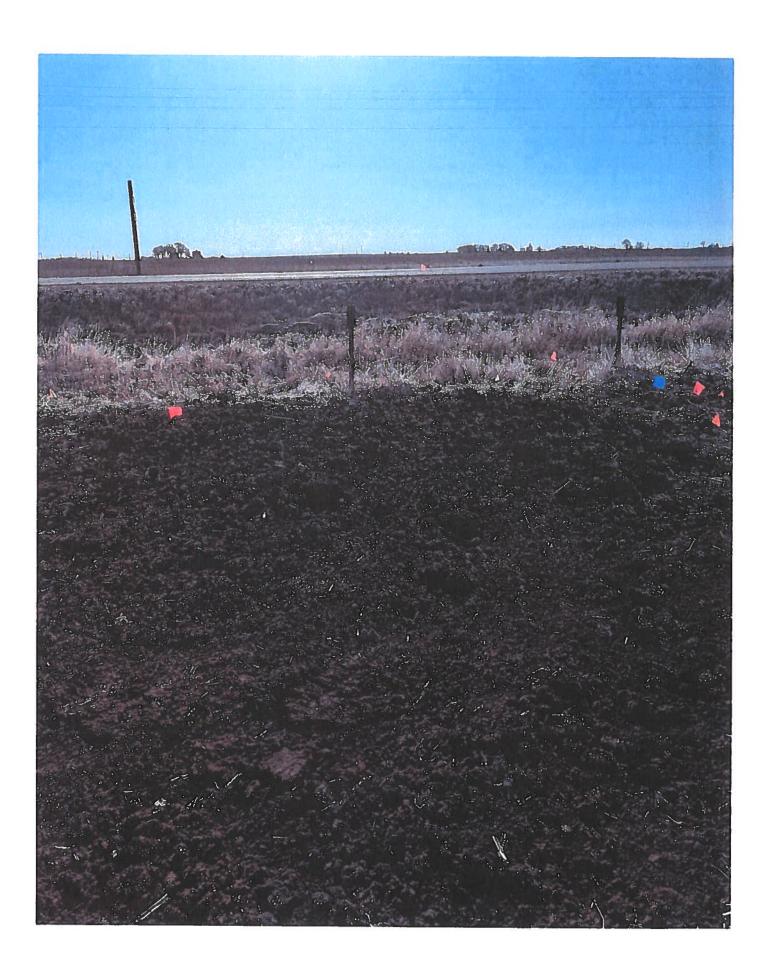


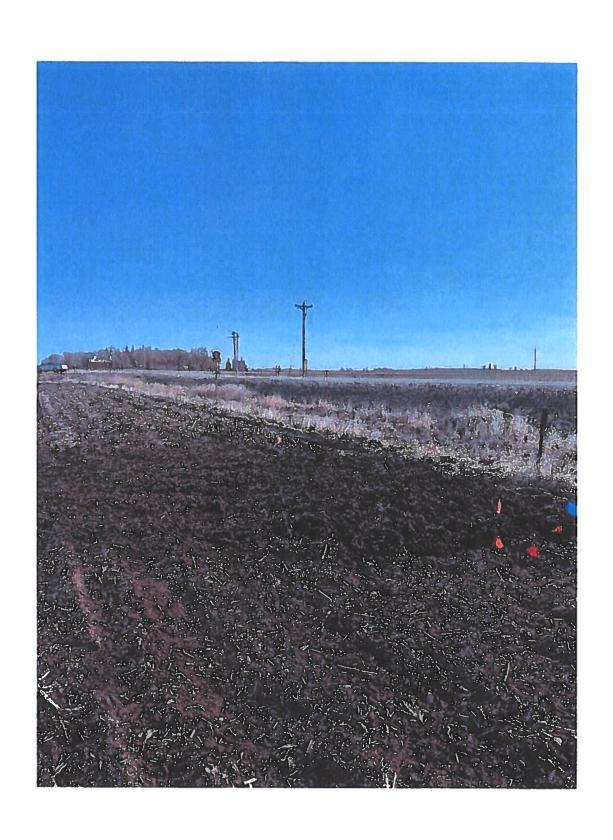


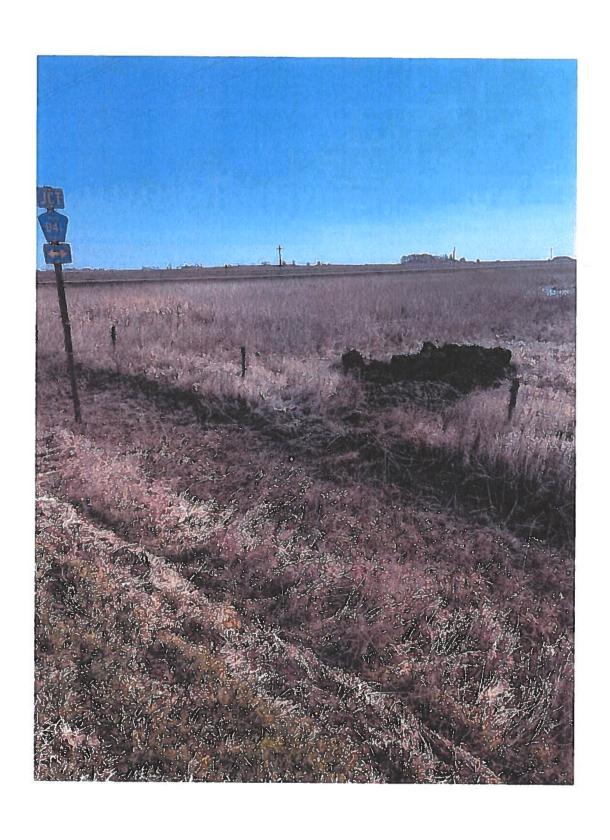




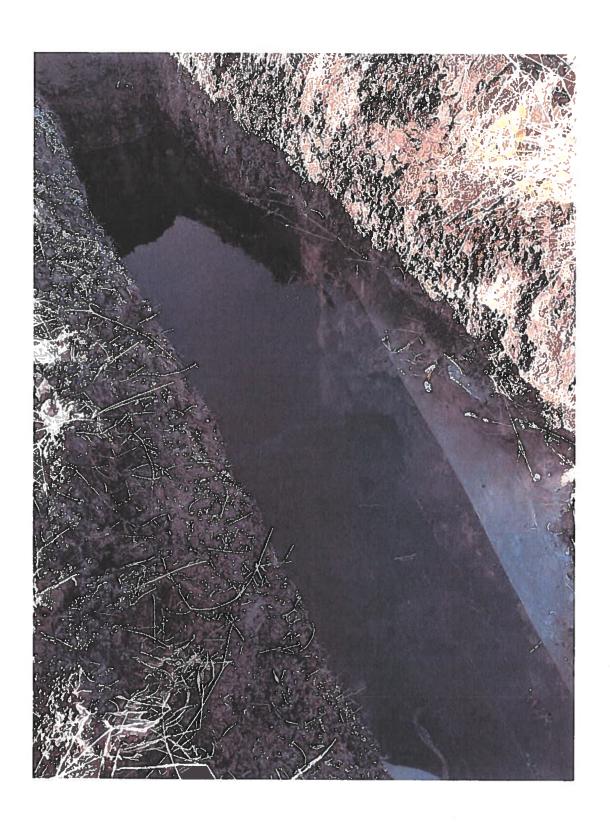










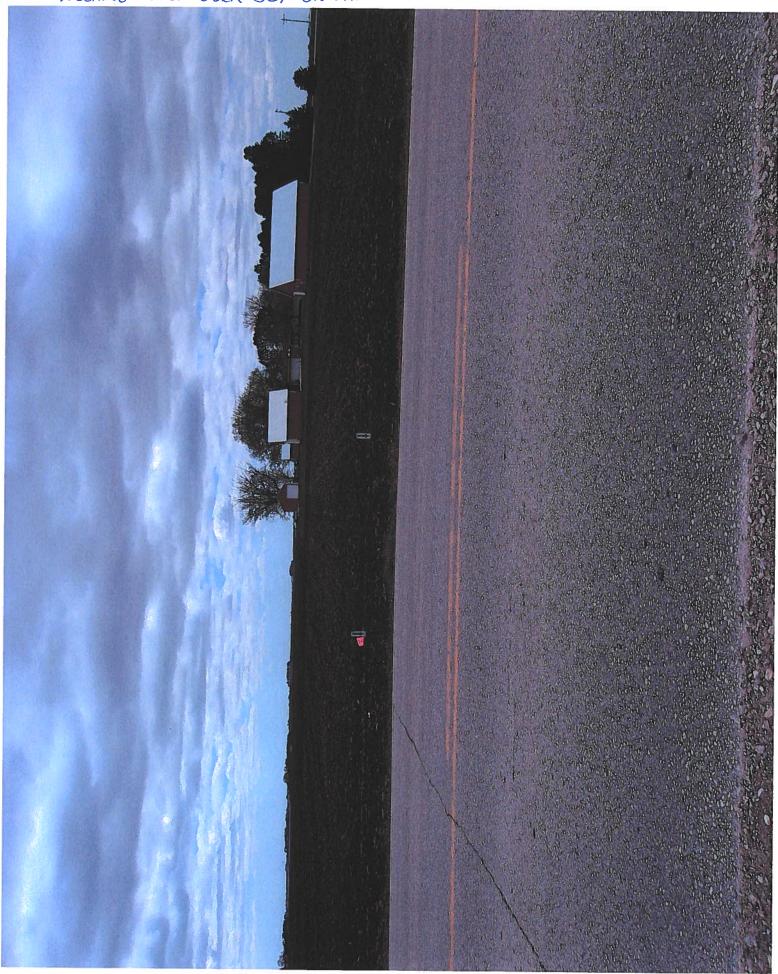


OBSERVATION REPORT	8	4/29/20
PROJECT NUMBER: 6844. 5 WO 29	DAYS OF WEEK:	SMTWTFS
COLDITY DOLLTE DOAD.	billion 140.	OF I
DU IT MAIN + LAT 8		
LOCATION: SZ7 AND DYI INTERSECTION		
DESCRIPTION OF WORK AND MATERIAL USED FO NAME, ITEM NO. AND LOCATION	─ R EACH OPERATION, INCLI	UDING CONTRACTOR/SUB
LAT 2 HAS RESTRICTION @ D41	N.OR S. SIDE?). NEED	To die ON NORTH SHOE
LET, Tay AND FIND LAT & CONNECTION TO		
LOOK GOOD WITH FLOWING WATER IN MAIN		
TALLED TO ROW VIKENAMP (80 yes 000)	He Angers with me	That The IA 2 Course
SHOULD BE CHELLED, BUT HE HAD NO LIDEA	WHOSE AT US	HAI THE CHI & CONNECTION
Shows the street of the street	WHITE IT WAS AT.	
0	/	
- S OF WALL OF S	^	
- S How of Co	<u> </u>	
18 Back Count	N	
AREA TO CHESIK		
main Tile		
O & BEEHING WEE	BEEHINE WET	
RVEAL WATER ORTHOGE HIGH	/	SUCK HOLE IN SH.
3	9	
		041
	WET BERNINK JOB	Carallage
- YELLOW HICK, day		SUCK HOLE
Greature 1	Je Larz	
day 3	114	
WET 3	due Trench 10	" cury, Fin OF WATER
BEEHUE !		
	7	
8	· 	
I Certify that the work described in this report was incorporate	ted into this contract unless oth	erwise noted.
Observer's Signature:	Date Prepared:	4/29/20
Reviewed by:	Engineer	* 1
,	- IJ	Date Reviewed

DATE:

4/29/20

CONSTRUCTION ENGINEERING



LOOKING E. @ 10" CLAY ON LATZ, 1E. OF S27

TRENCH ON LATZ, E SIDE S27

LOOKING EAST @ BEIEHIUE WITH HOLE ON LATZ, S. SIDE D41 BY CRP



S. SIDE D41, HOLEON LATZ, LOOKING N.





SURF. DRAIN RCP WITH SUCK HOVE OVER TOP RCP AND LAT 2

LOOKING S. ON LAT 2 ROUTE, FLAGON SKIR HOLE ON NSH. D41







LOOKING UPSTREAM ON MAIN, S. OF D41, TPST SET ON MAIN BY REPAIR



LOOKING W. ON NPW D41, JUSTW. 01-527



ORANGE HICK ON LAT 2? ON N dITCH D41



DRY INTAKE ON LAT 2, S. dITCH 041 (100. 01527)

