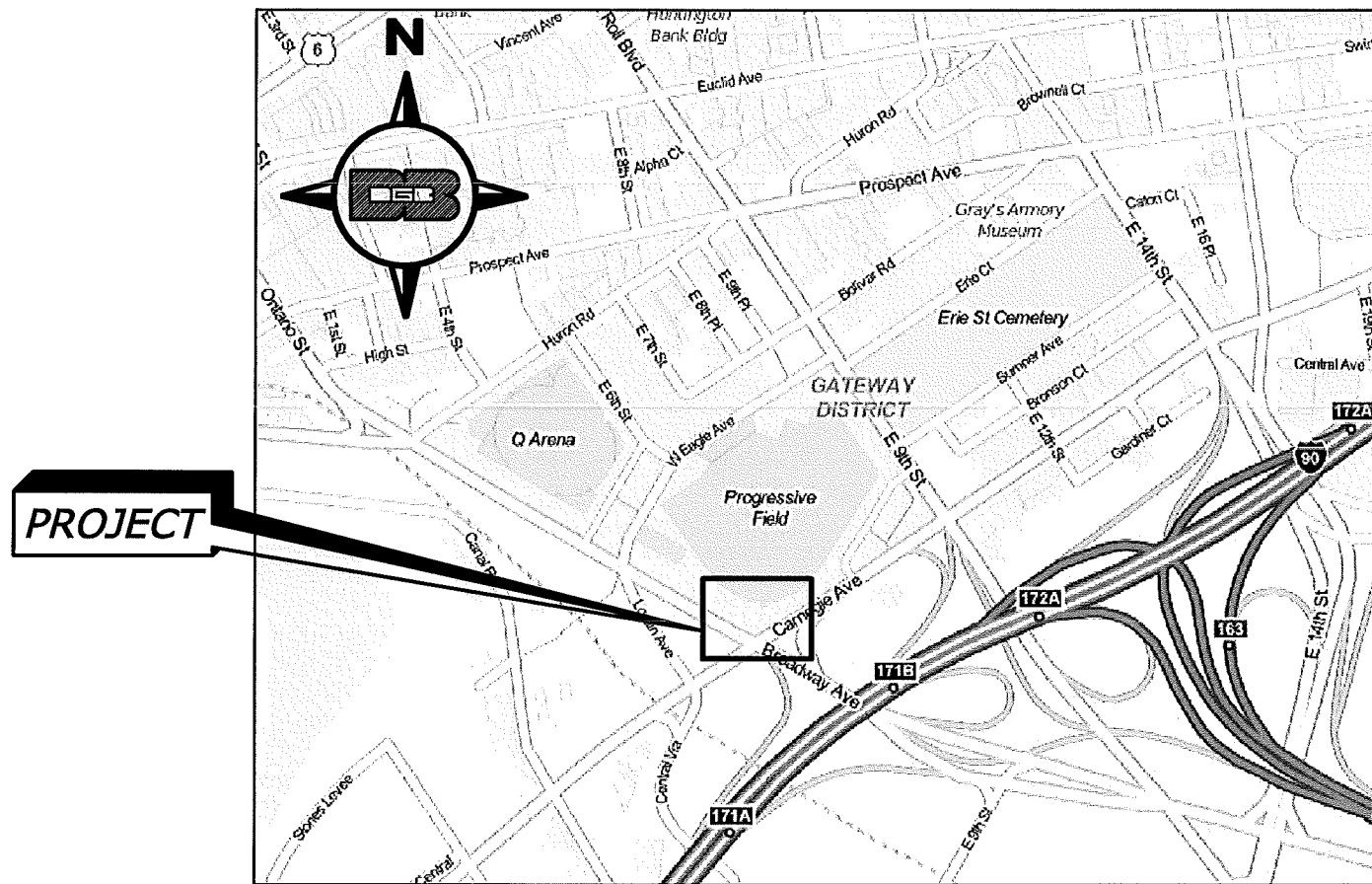


XO COMMUNICATIONS

ONTARIO STREET & CARNEGIE STREET INTERSECTION

LEGEND	
ITEM	DESCRIPTION
Ⓜ	TELEPHONE MANHOLE
λ	SIGN
Ⓛ	LIGHT POLE
Ⓜ	UNKNOWN MANHOLE
Ⓢⓐ	COMBINED STORM AND SANITARY SEWER MANHOLES
Ⓜ	WATER VALVE
Ⓜ	WATER MANHOLE
Ⓜ	FIRE HYDRANT
Ⓛ	UTILITY POLE
Ⓛ	TELECOM POLE
○	SIGNAL POLE
Ⓛ	LIGHT POLE
Ⓜ	TREE OR SHRUB
Ⓜ	TRAFFIC PULL BOX
Ⓜ	ELECTRIC PULL BOX
Ⓜ	GAS VALVE
○	SIGN POST
Ⓢⓐ	STORM CATCH BASINS
Ⓢⓐ	INLET CATCH BASINS
Ⓜ	ELECTRIC MANHOLE
(DATUR)	DEPICTED ACCORDING TO UTILITY RECORDS
UTILITY LINES AND CONDUITS AS LABELED ON PLAN	
PROPOSED XO DUCT RELOCATION	



LOCATION MAP

NOT TO SCALE

□ - PORTION TO BE IMPROVED

2 WORKING DAYS
BEFORE YOU DIG
CALL TOLL FREE (800) 362-2764
OHIO UTILITIES PROTECTION SERVICE

XO COMMUNICATIONS

GENERAL NOTES:

1. ALL KNOWN UNDERGROUND UTILITIES AND OBSTRUCTIONS ARE PRESENT ON DRAWING AND ASSEMBLED FROM AVAILABLE CITY AND UTILITY MAPS AND FIELD OBSERVATIONS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO LOCATE, PROTECT AND REPAIR IF DAMAGED.

2. CONTRACTOR IS RESPONSIBLE FOR CONTACTING UTILITIES PRIOR TO CONSTRUCTION.

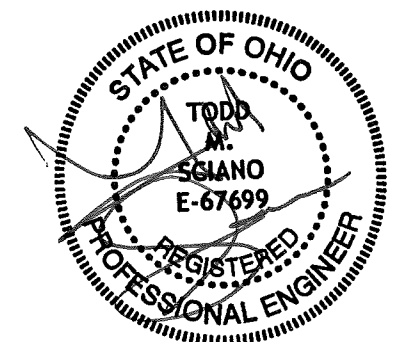
3. CALL UNDERGROUND SERVICE ALERT, AS SHOWN BELOW, 48 HOURS PRIOR TO EXCAVATION.

4. CONTRACTOR RESPONSIBLE FOR POTHOLING, LOCATING AND PROBING ALL UNDERGROUND STRUCTURES.

THE UNDERGROUND UTILITIES SHOWN ARE BASED UPON FIELD RECORDS WHEREVER POSSIBLE, OTHERWISE FROM RECORDS WHICH MAY OR NOT BE COMPLETE OR ACCURATE.

THESE DRAWINGS ARE FOR ENGINEERING AND PERMITTING PURPOSES ONLY, UTILITIES SHOWN ARE APPROXIMATE.

OUPS CALLS ARE TO BE MADE BY CONTRACTOR FOR UTILITY LOCATIONS.



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Email: Utilities@ohio.com

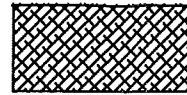
Job Description
& Location:

XO COMMUNICATIONS -

ONTARIO STREET & CARNEGIE STREET INTERSECTION

DONALD G. BOHNING & ASSOCIATES, INC.
CIVIL ENGINEERING & SURVEYING
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125
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Scale: N/A	Page: 1 of 11



WORK AREA



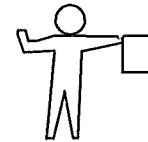
TRAFFIC SIGNS (ARROW DIRECTION INDICATES SIGN ORIENTATION.)



CHANNELING DEVICES (TRAFFIC CONES, DELINEATOR POSTS, VERTICAL PANELS, ETC.)



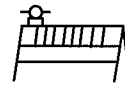
HIGH LEVEL WARNING DEVICE



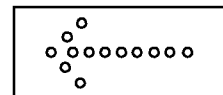
FLAGGING (COUNTERMANDING TRAFFIC SIGNALS REQUIRES OFF-DUTY LAW ENFORCEMENT OFFICER)



SURVEY RODMAN



BARRICADES



FLASHING ARROW SIGN

TRAFFIC CONTROL:

1. THE TRAFFIC CONTROL PLAN PRESENTED IN THIS PROPOSAL IS FOR PERMITTING PROPOSING ONLY. IT WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO ADHERE TO THE TRAFFIC CONTROL REQUIREMENTS THAT ARE SET FORTH BY THE LOCAL OR STATE PERMITTING JURISDICTIONS.

2. THE DIAGRAMS PRESENTED IN THIS PROPOSAL ARE BASED UPON THE STANDARDS DESCRIBED IN WORK AREA TRAFFIC CONTROL HANDBOOK (THE WATCH MANUAL).

3. INDIVIDUAL CONSTRUCTION DRAWINGS HAVE BEEN CORRELATED TO THE WATCH MANUAL SINGLE DIAGRAM.

4. THE LENGTH OF CONSTRUCTION PER DAY WILL BE DETERMINED BY THE TIME CONSTRAINTS PRESCRIBED BY THE LOCAL STATE PERMITTING JURISDICTIONS.

5. ALL NECESSARY AND APPROPRIATE TRAFFIC CONTROL DEVICES SHALL BE IN PLACE BEFORE WORK IS STARTED. DEVICES NO LONGER REQUIRED SHALL BE REMOVED AS SOON AS POSSIBLE.

NOTES:

1. FOR NIGHT TIME USAGE, REFER TO WARNING LIGHT APPLICATIONS DURING NIGHT TIME OPERATIONS.

2. ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES (SEQUENTIAL ARROWS, BARRICADES, STEEL PLATES) MAY BE REQUIRED.



WORKERS



ROAD WORK



FLAGGER



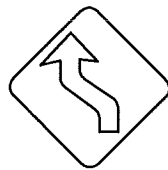
END ROAD WORK



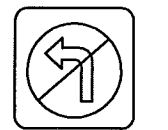
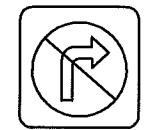
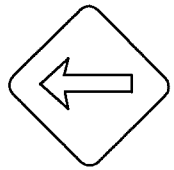
SINGLE LANE AHEAD



LEFT LANE CLOSED AHEAD

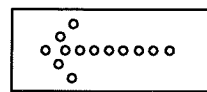


SHOULDER WORK AHEAD

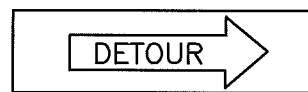


ROAD CLOSED

WARNING SIGNS



FLASHING ARROW SIGN



GUIDE SIGNS



PARKING SIGNS AND GUIDE SIGNS



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South Euclid, Ohio 44121
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Email: Utilities@ohio.net

Job Description
& Location:

XO COMMUNICATIONS -
ONTARIO STREET & CARNEGIE STREET INTERSECTION

DONALD G. BOHNING & ASSOCIATES, INC.
CIVIL ENGINEERING & SURVEYING
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125
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Page: 2 of 11

CONSTRUCTION NOTES

1. ALL EXCAVATIONS WILL BE BACKFILLED PER CITY, COUNTY, STATE OR ODOT SPECIFICATIONS.
2. FIBER OPTIC WARNING TAPE WILL BE PLACED A MINIMUM OF 12" BELOW THE EXISTING GRADE IN ALL EXCAVATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR THE VERIFICATION AND LOCATION OF ALL EXISTING UTILITY CROSSINGS, CONTRACTOR WILL HAND DIG AS NEEDED.
4. CONTRACTOR MUST CALL THE LOCAL UTILITY ONE-CALL NUMBER AT LEAST 72 HOURS IN ADVANCE OF ANY CONSTRUCTION.
5. CONTRACTOR MUST FOLLOW ALL CITY SPECIFICATIONS ON SEPARATIONS BETWEEN CONDUITS AND UTILITIES.
6. CONTRACTOR WILL CAP ALL THE ENDS OF ANY VACANT DUCTS DURING CONSTRUCTION, UPON COMPLETION AND WHILE AWAITING FIBER INSTALLATION.
7. THE BENDING RADIUS FOR ALL FIBER CABLE WILL BE PER CABLE MANUFACTURER SPECS.
8. FIBER CABLE INSTALLATION TENSION WILL NOT EXCEED A MAXIMUM OF 600 POUNDS, A 600 POUND BREAKAWAY WILL BE USED DURING ALL FIBER PULLING.
9. CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL AND STORAGE OF ALL SHRUBBERY TO BE REPLACED.
10. CONTRACTOR IS RESPONSIBLE TO MAINTAIN CONSTRUCTION AS-BUILT DRAWINGS AND PRESENT A COMPLETE SET OF RED-LINED DRAWINGS TO THE CONTRACT PROVIDER WITHIN 14 DAYS OF COMPLETION OF THE WORK.
11. CONDUITS WILL BE TERMINATED NO MORE THAN SIX (6) INCHES ABOVE THE FLOOR GRADE IN ALL HANDHOLES.
12. CONTRACTOR MUST PLACE AT LEAST EIGHT (8) INCHES OF 3/4" CRUSHED ROCK IN THE BOTTOM OF ALL HANDHOLE PITS PRIOR TO PLACING THE WIRE MESH WITH A MINIMUM OR 2 SQUARES PER INCH.
13. CONTRACTOR MUST PLACE FIBER SLACK COILS IN EACH MANHOLE/HANDHOLE IN ACCORDANCE TO THE PRINTS.
14. RIGHT OF WAY (ROW) LINES COINCIDE WITH THE BACK OF THE SIDEWALKS, UNLESS OTHERWISE INDICATED.
15. MANHOLES ARE PER CITY SPECIFICATION AND H-20 RATED.



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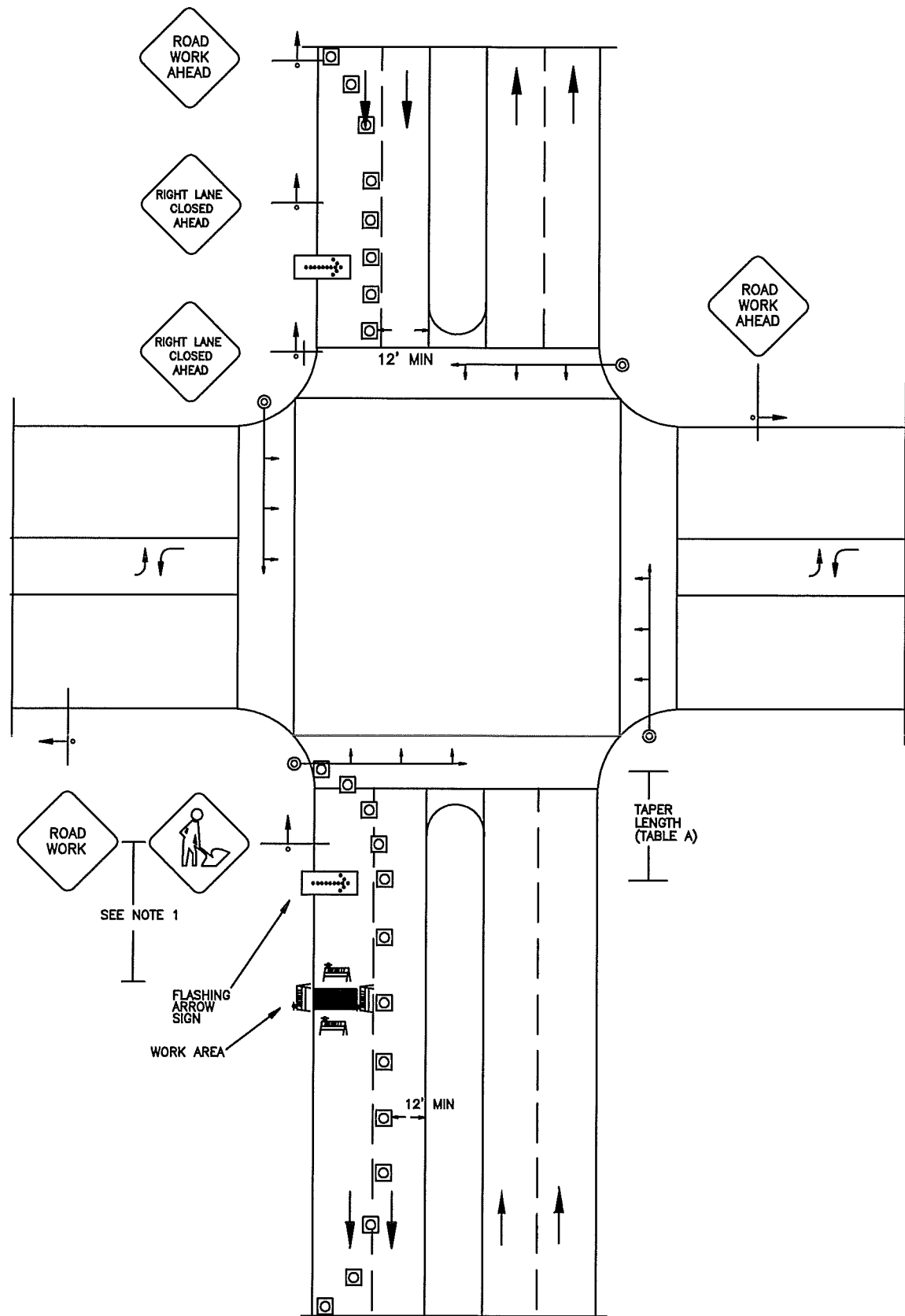
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Page: 3 of 11



TRAFFIC CONTROL PLAN
4 LANE ROADWAY WITH RIGHT LANE CLOSED

NOTES:

1. THE LOCATION OF THE SIGNS AS SHOWN ON THE ILLUSTRATIONS ARE GUIDELINES AND ACTUAL LOCATIONS WILL DEPEND UPON ALIGNMENT, GRADE, LOCATION OF STREET INTERSECTIONS AND POSTED SPEED LIMITS.

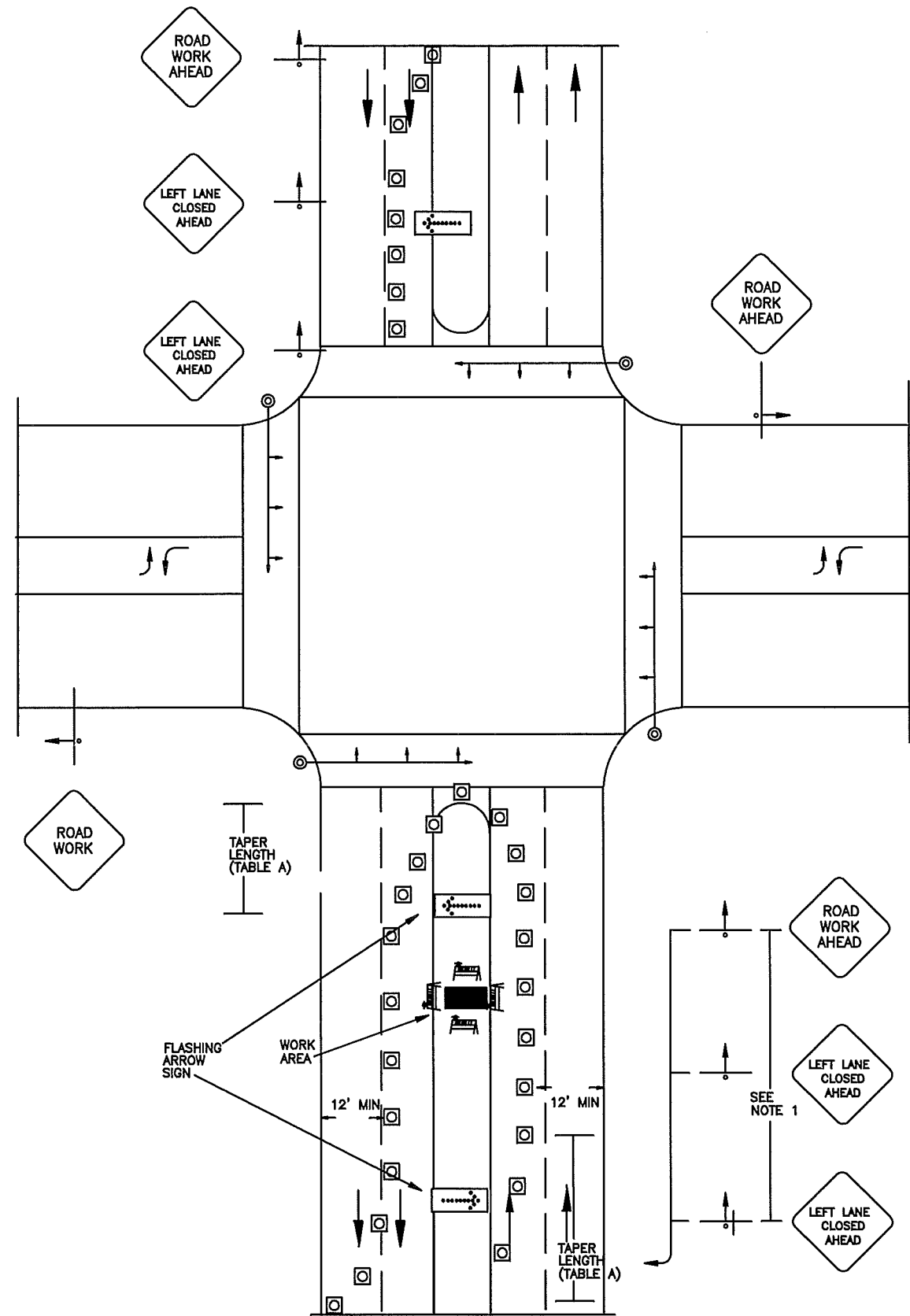
2. ALL SIGNS WHICH ARE TO CONVEY THEIR MESSAGES DURING DARKNESS SHALL BE REFLECTIVE OR ILLUMINATED.

3. DISTANCES MAY VARY AS APPROVED BY THE DESIGNER.

4. FLAGGERS REQUIRED TO CONTROL TRAFFIC WHENEVER THE CONTRACTOR MUST INTERRUPT TRAFFIC FLOW TO ACCESS THE WORK SITE WITH MATERIALS OR EQUIPMENT.

LEGEND:

☐ CONE OR CHANNELING DEVICE



TRAFFIC CONTROL PLAN
4 LANE ROADWAY WITH RIGHT LANE CLOSED



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XO COMMUNICATIONS -
ONTARIO STREET & CARNEGIE STREET INTERSECTION

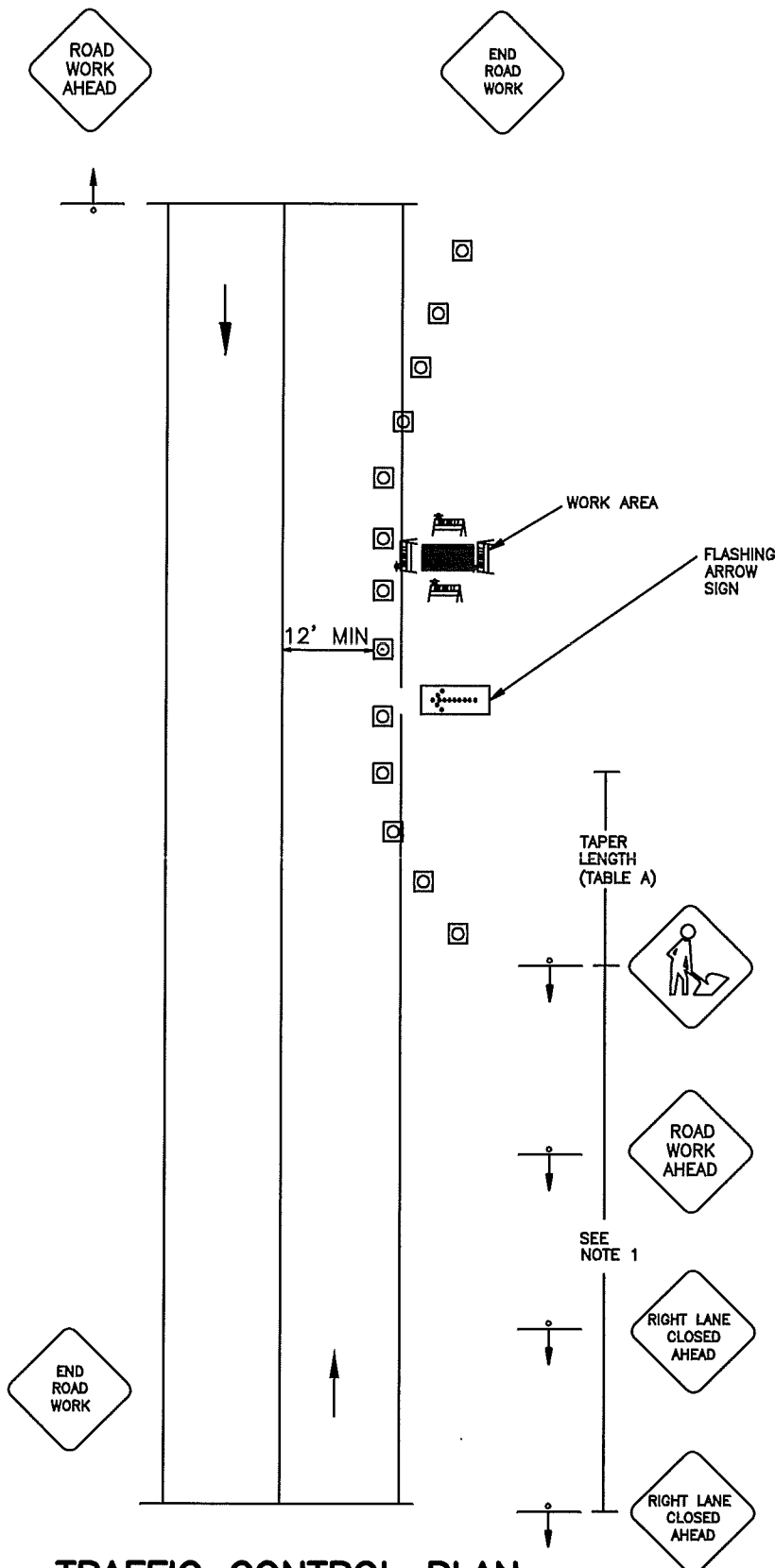
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Page: 4 of 11



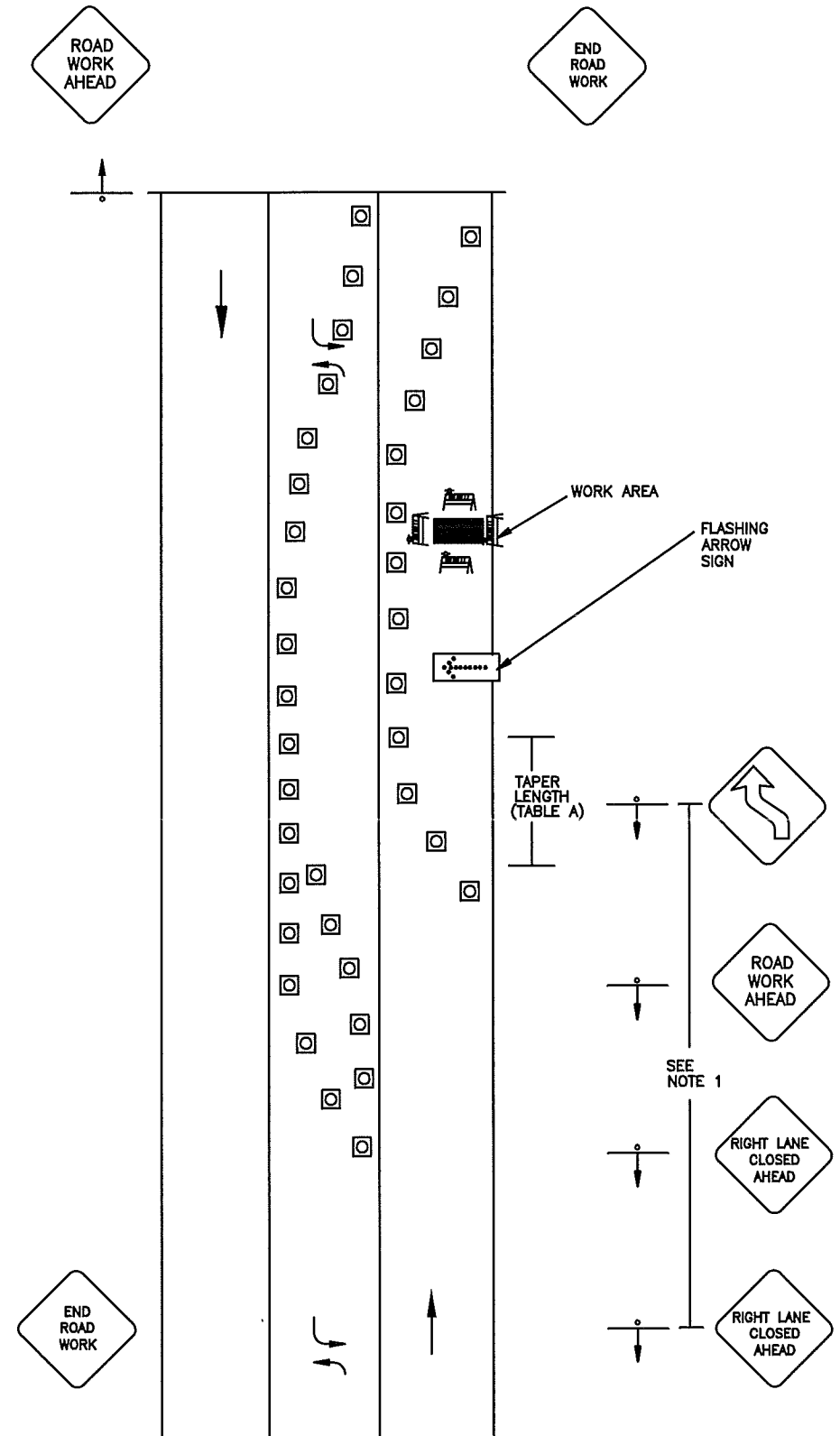
TRAFFIC CONTROL PLAN
4 LANE ROADWAY WITH RIGHT LANE CLOSED

NOTES:

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LEGEND:

☐ CONE OR CHANNELING DEVICE



TRAFFIC CONTROL PLAN
4 LANE ROADWAY WITH RIGHT LANE CLOSED



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& Location:

**HURON ROAD - PROSPECT
AVE. TO E. 7th STREET**

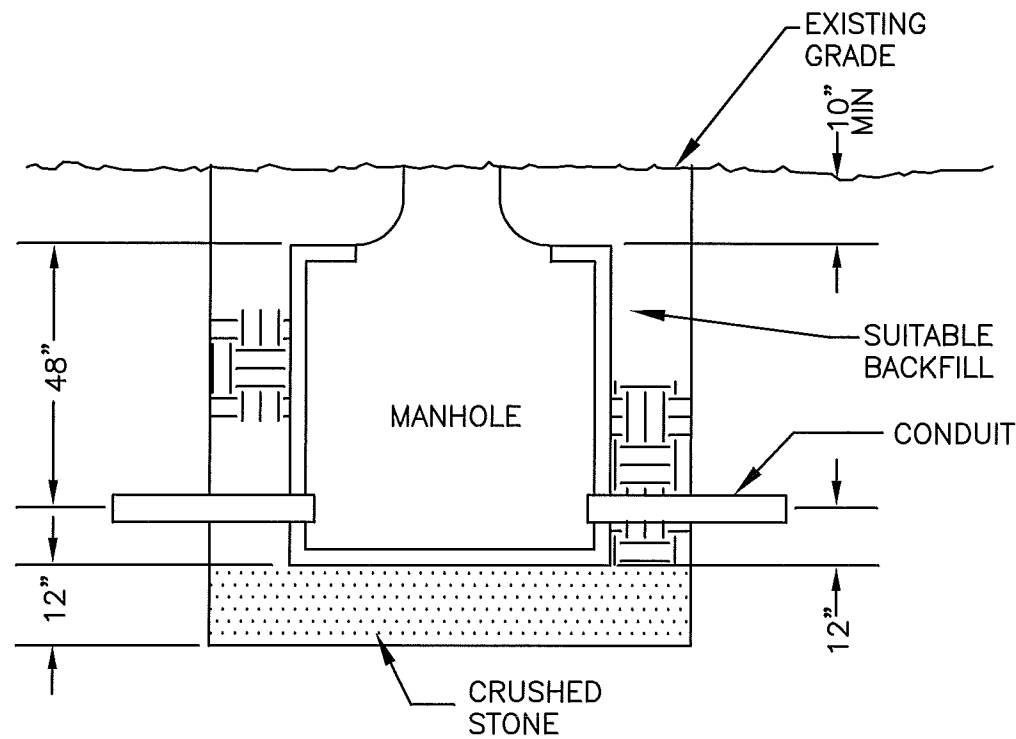
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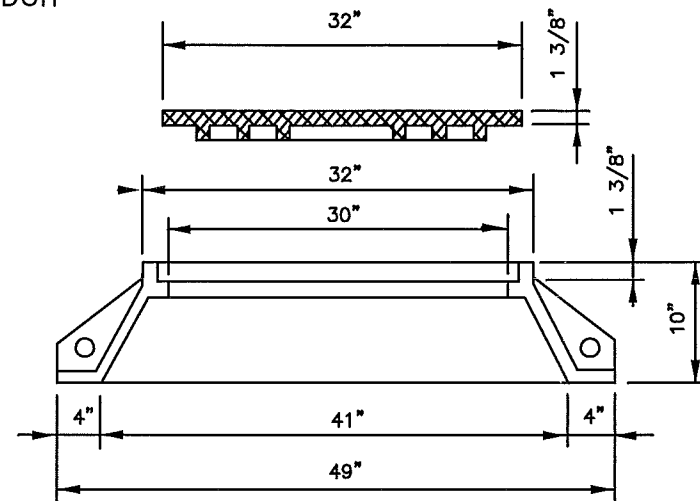
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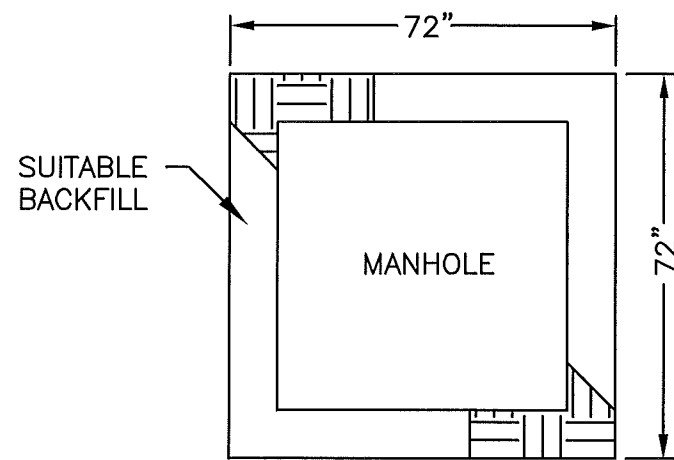
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**MANHOLE
PROFILE VIEW**

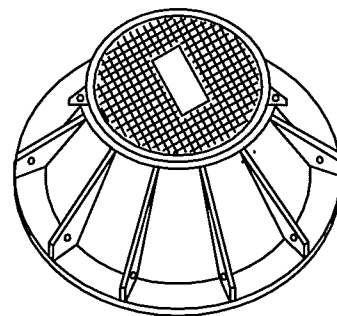


RING AND COVER DETAIL

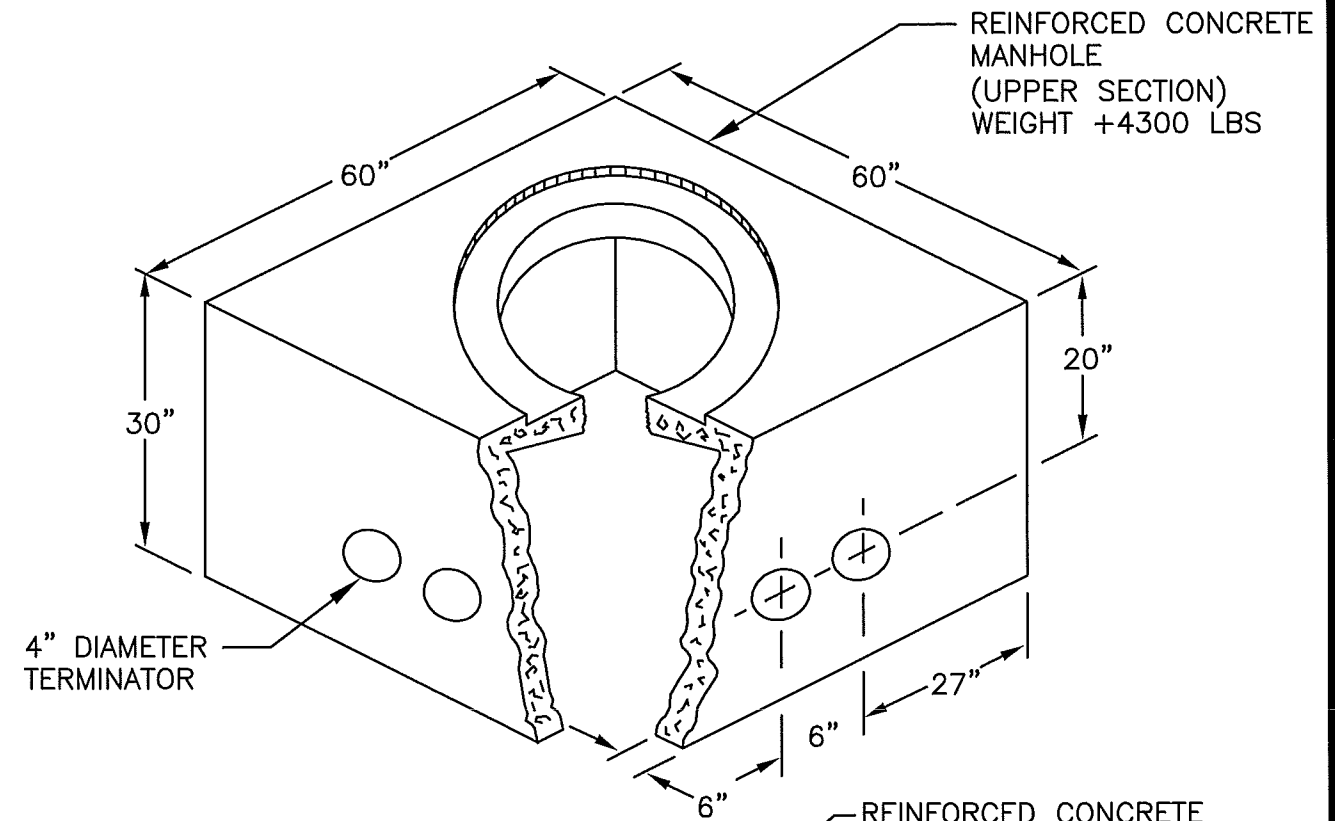


**MANHOLE
PLAN VIEW**

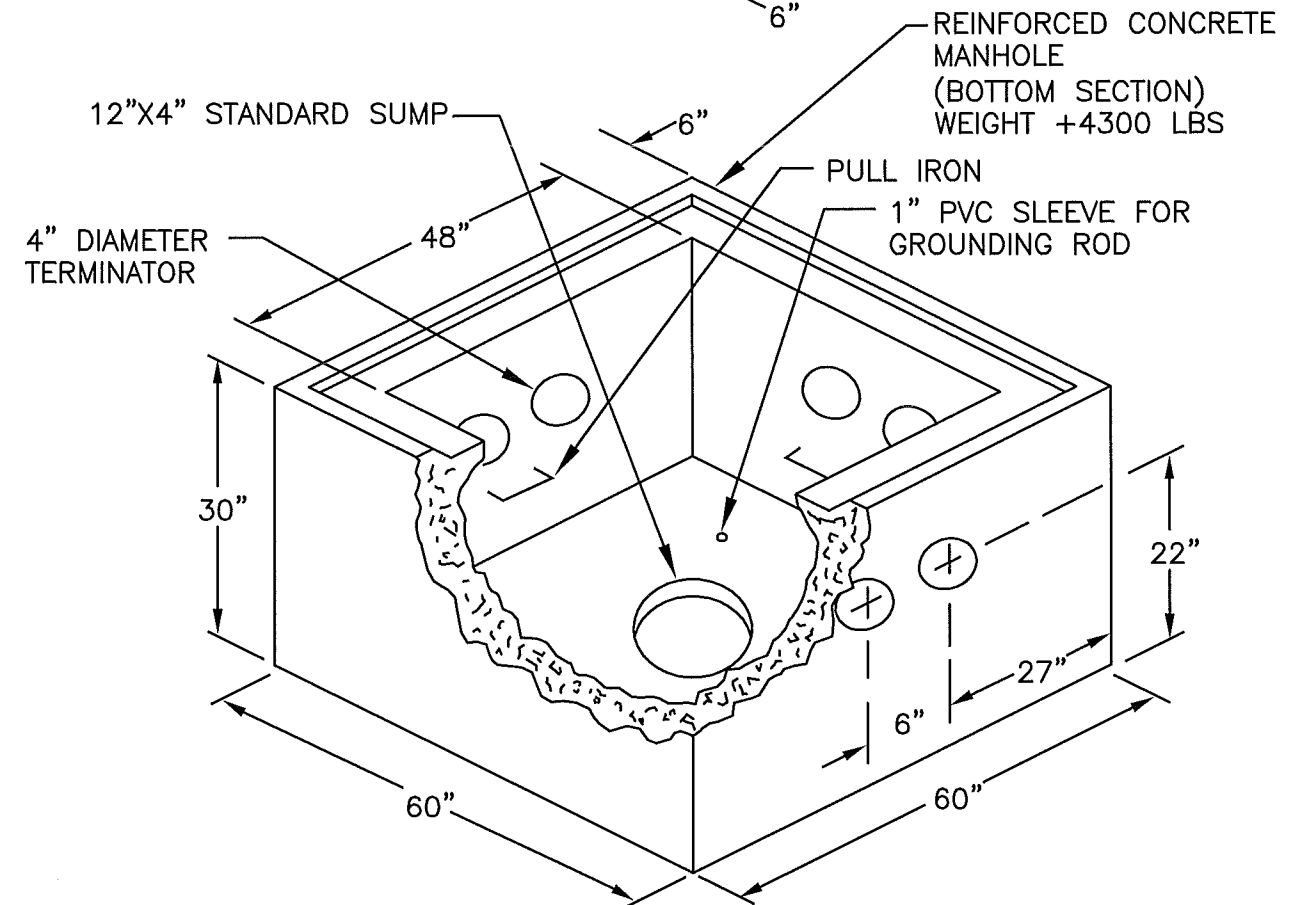
**MANHOLE
COVER**



1. EACH MANHOLE TO HAVE (4) PICK SLOTS FOR REMOVING.
2. ACCESS HOLE 30"



**REINFORCED CONCRETE
MANHOLE
(UPPER SECTION)
WEIGHT +4300 LBS**



**REINFORCED CONCRETE
MANHOLE
(BOTTOM SECTION)
WEIGHT +4300 LBS**



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XO COMMUNICATIONS -
ONTARIO STREET & CARNEGIE STREET INTERSECTION

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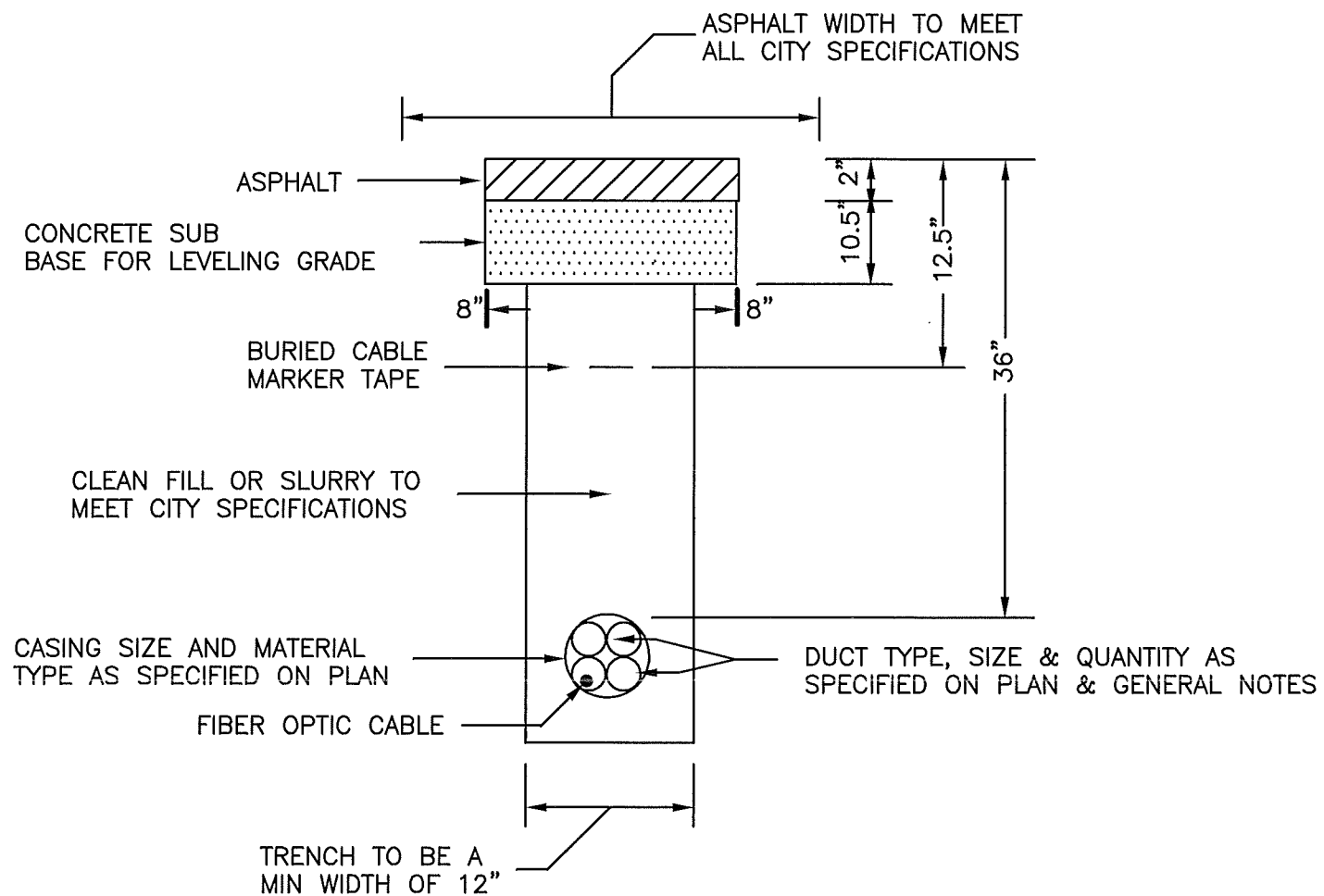
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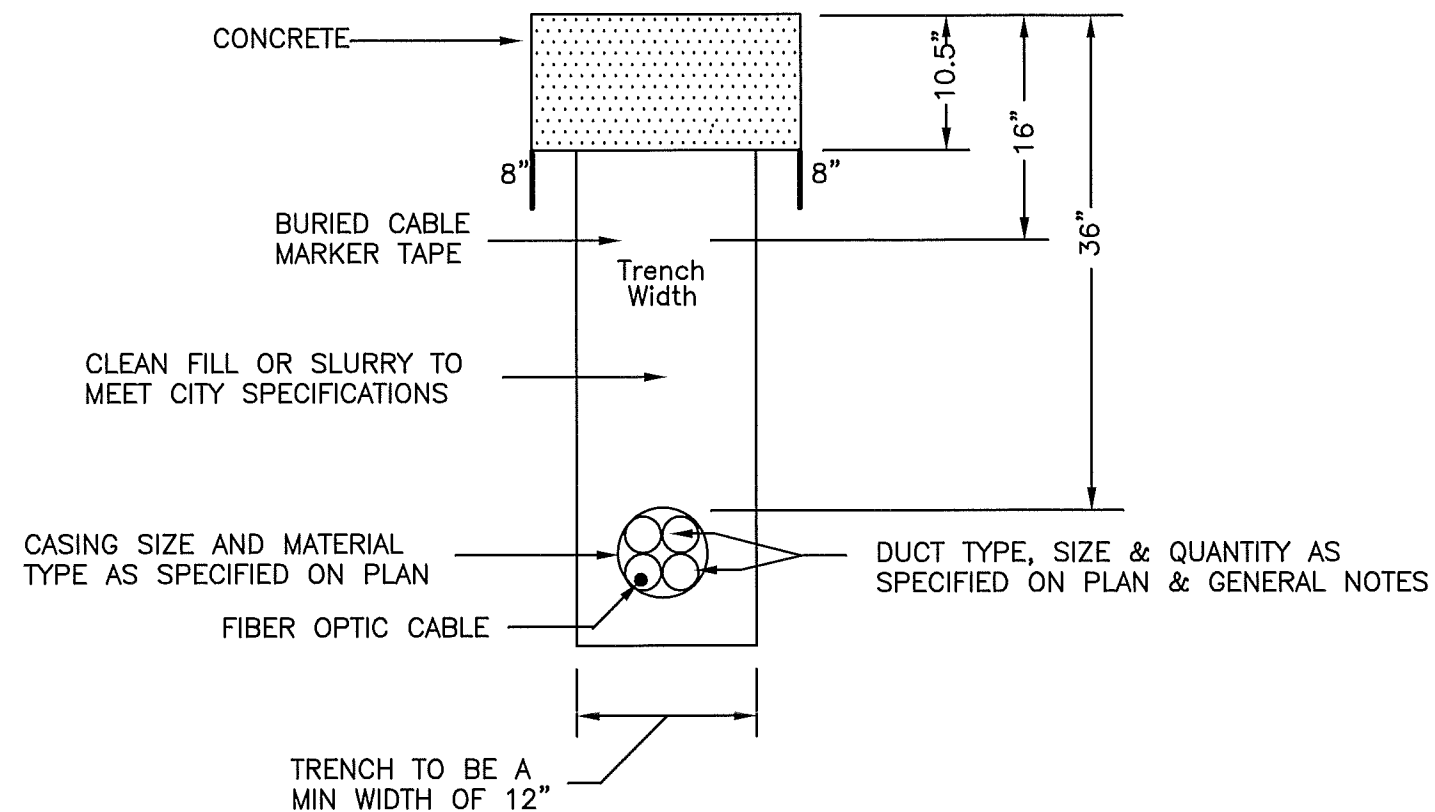
Page: 6 of 11

ASPHALT OPEN CUT TRENCH DETAIL



* THICKNESS OF ASPHALT SURFACE AND SUB BASE TO MEET ALL CITY SPECIFICATIONS

FINISH CONCRETE OPEN CUT TRENCH DETAIL



* THICKNESS OF ASPHALT SURFACE AND SUB BASE TO MEET ALL CITY SPECIFICATIONS

CONSTRUCTION NOTES:

1. VOID IN EXCAVATING AREAS TO BE BACKFILLED WITH SELECT MATERIAL.
2. BOTTOM OF EXCAVATED PIT TO BE BACKFILLED WITH 12" OF CRUSHED STONE (3/4" GRADE).
3. SHORING WILL BE REQUIRED.
4. ALL MANHOLE SHALL BE PLACED WITH COVER, FLUSH WITH EXISTING GRADE.
5. IF MANHOLE SHALL CONTAIN FIBER SPLICES, INSTALL AN 8' LG. X 5/8" DIA. COPPER CLAD GROUND ROD INTO THE BOTTOM OF THE MANHOLE SUMP. A #6 BCW SHALL BE CLAMPED TO THE ROD AND ATTACHED TO THE GROUND LUG/ROD ON THE SIDE WALL OF THE MANHOLE.



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XO COMMUNICATIONS -
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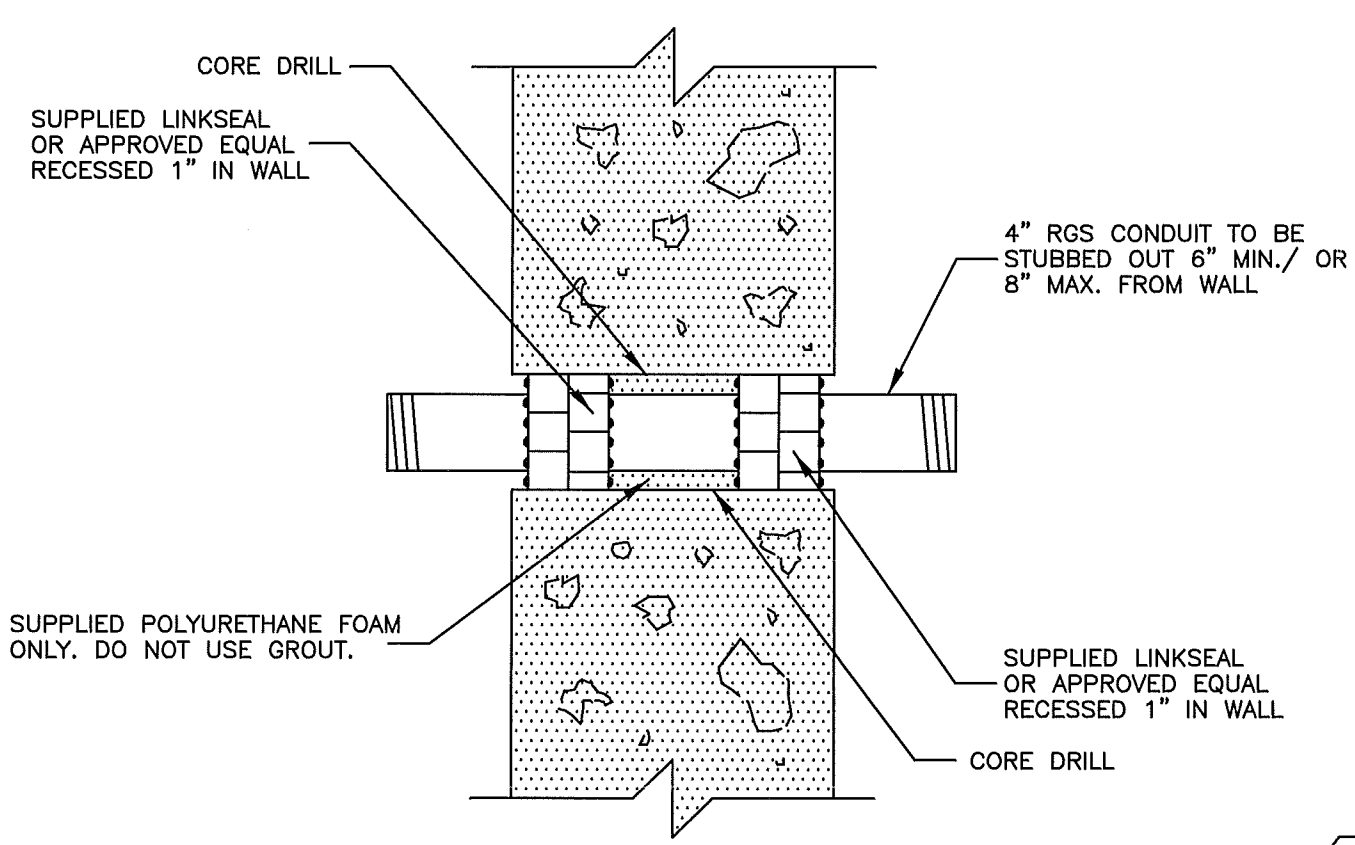
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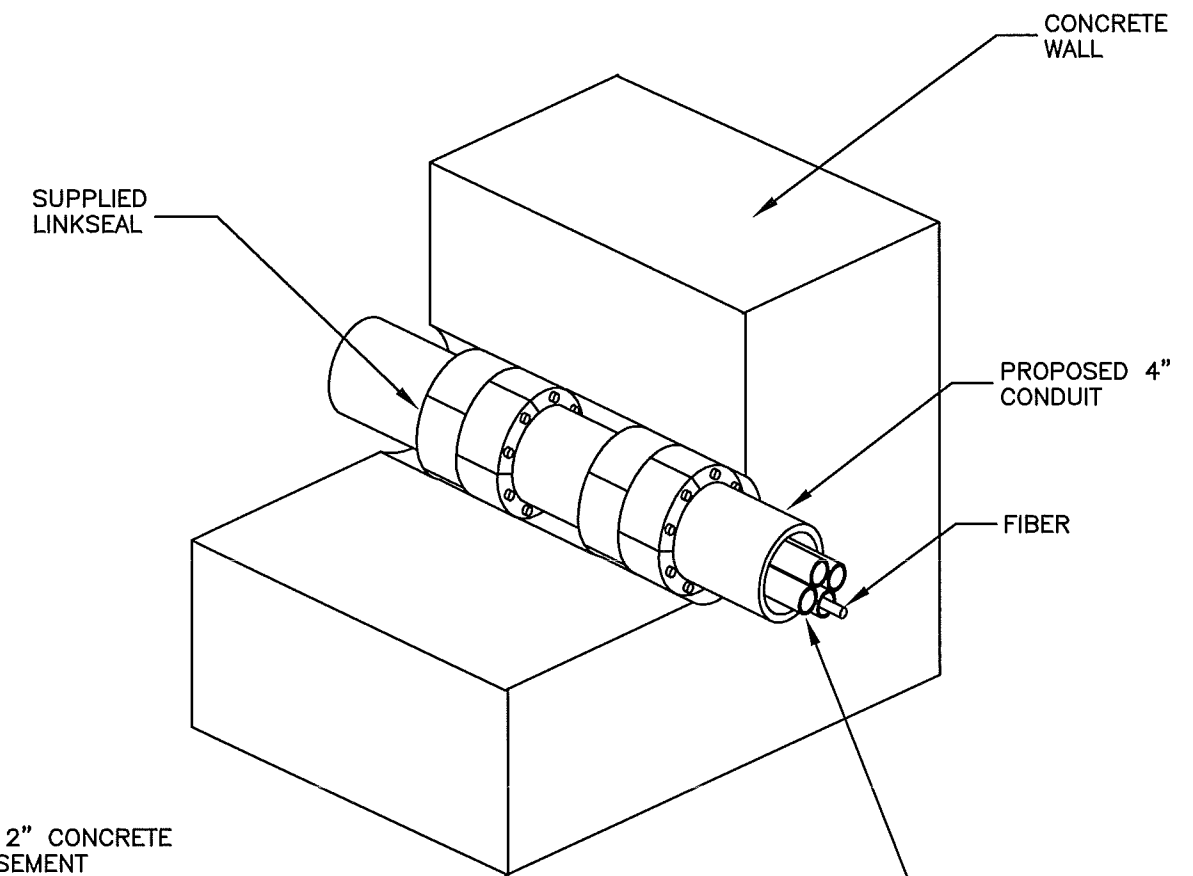
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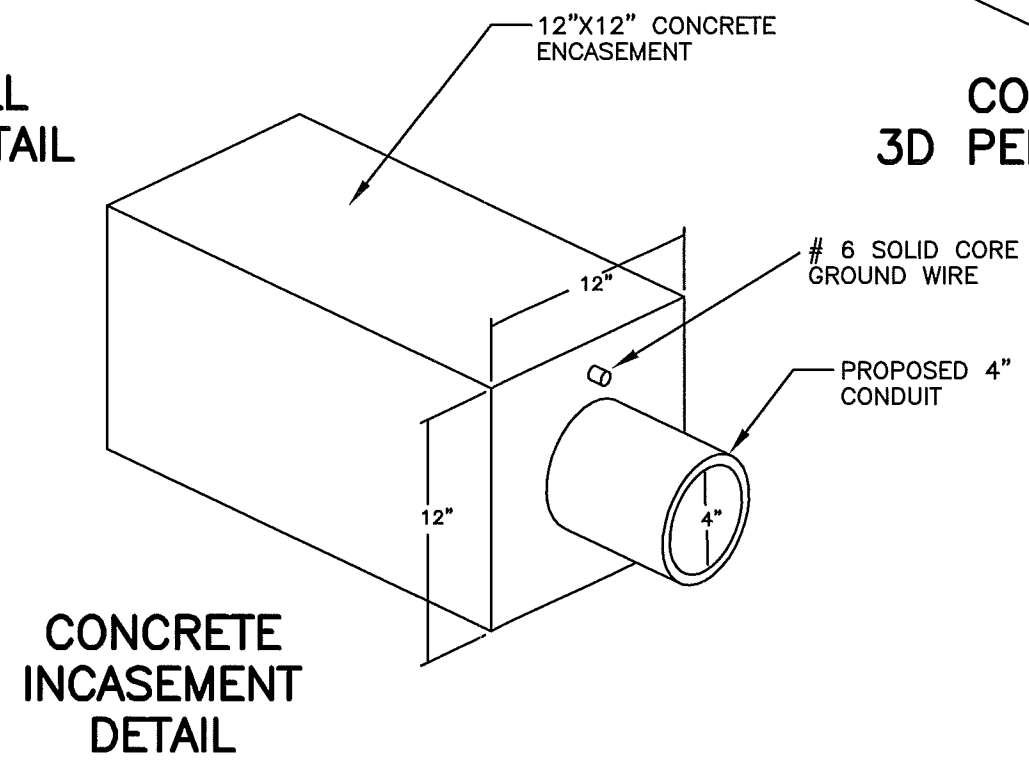
Page: 7 of 11



CONCRETE WALL PENETRATION?DETAIL



CONCRETE WALL 3D PENETRATION?DETAIL



CONCRETE INCASEMENT DETAIL

NOTE: CONCRETE WALL PENETRATING DETAIL INCLUDED FOR REFERENCE ONLY OR AS DIRECTED BY THE OWNER.



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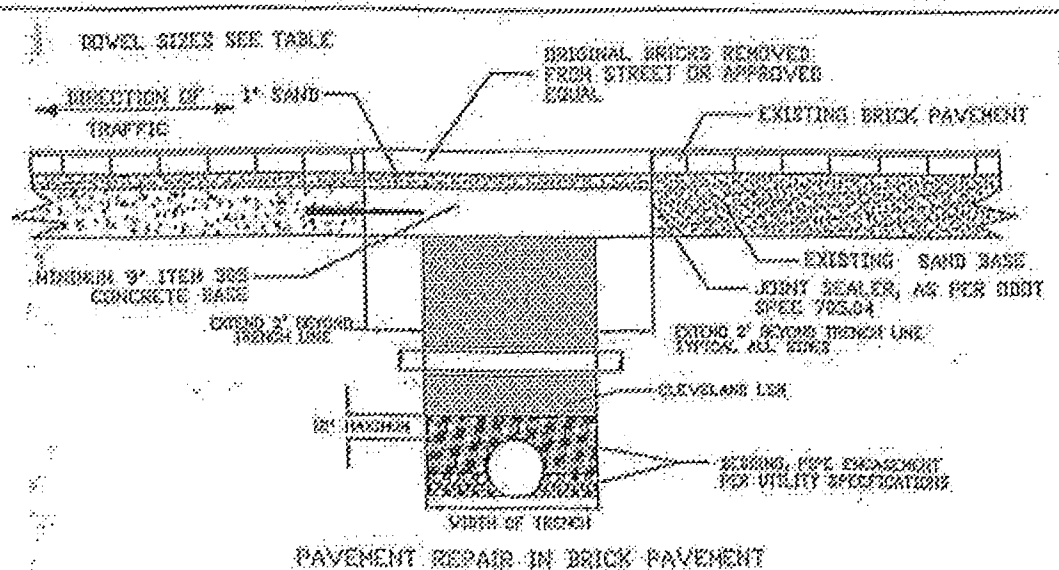
Job Description
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ONTARIO STREET & CARNEGIE STREET INTERSECTION

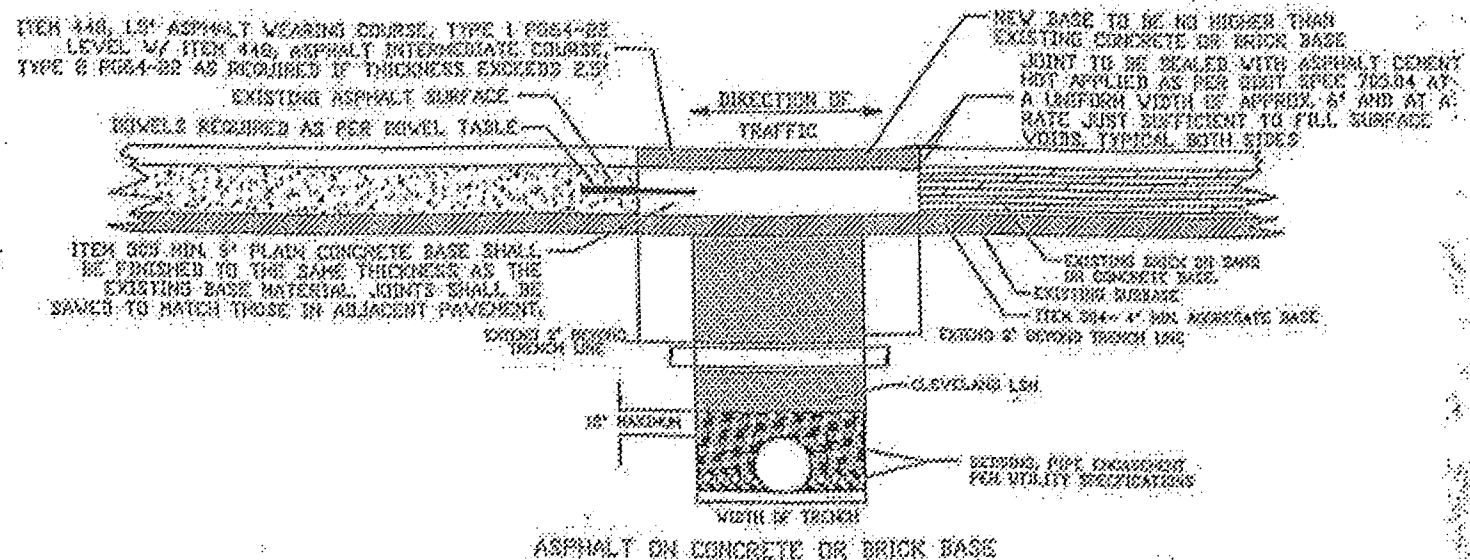
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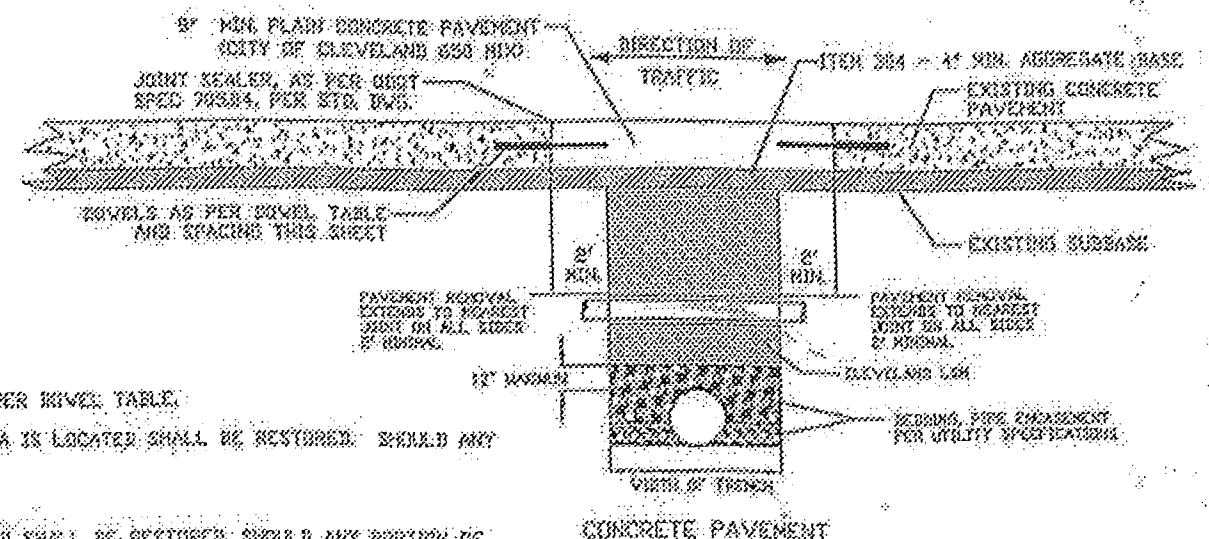


PAVEMENT REPAIR IN BRICK PAVEMENT



ASPHALT ON CONCRETE OR BRICK BASE

DOWEL TABLE	
PAVEMENT THICKNESS 8" OR LESS	1"
9"	1 1/8"
10"	1 1/4"
OVER 10"	AS DIRECTED
DOWELS SHALL BE SPACED EVERY 30"	



CONCRETE PAVEMENT

NOTES:

1. ALL PAVEMENT OPENINGS SHALL BE SAWS FULL DEPTH AND HAVE SMOOTH VERTICAL FACES. DOWELS SHALL BE REQUIRED, AS PER DOWEL TABLE.
2. CONCRETE REPAVING SHALL BE PERFORMED IN SUCH A MANNER THAT THE ENTIRE LANE AND/OR SLAB IN WHICH THE REPAIR AREA IS LOCATED SHALL BE RESTORED. SHOULD ANY PORTION OF THE REPAIR AREA EXTEND INTO AN ADJACENT LANE AND/OR SLAB, THAT LANE OR SLAB SHALL ALSO BE REPAVED.
3. EXTEND OVERCUT IN LONGITUDINAL DIRECTION TWO FEET (2') INTO UNDISTURBED SUBGRADE.
4. ASPHALT RESURFACING SHALL BE PERFORMED IN SUCH A MANNER THAT THE ENTIRE LANE IN WHICH THE REPAIR AREA IS LOCATED SHALL BE RESTORED. SHOULD ANY PORTION OF THE REPAIR AREA EXTEND INTO AN ADJACENT LANE, THAT LANE SHALL ALSO BE RESURFACED. THE RESURFACING SHALL TAKE PLACE FROM BEGINNING PROJECT TO END PROJECT. (I.E. WORK LIMITS FOR PAVEMENTS WITH A WIDTH OF 40' OR LESS A LANE SHALL BE CONSIDERED 1/2 THE PAVEMENT WIDTH.)
5. BRICKS REMOVED FROM A REPAIR SHALL BE STORED IN A SAFE PLACE BY THE CONTRACTOR FOR REUSE. THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING ANY BRICKS THAT ARE STOLEN OR DAMAGED AT NO COST TO THE CITY.
6. ALL NEW BRICKS SUPPLIED BY THE CONTRACTOR MUST FIRST BE APPROVED BY THE CITY BEFORE THEY ARE USED.
7. SAWCUTTING ALL PARTIAL BRICKS SHALL BE SAWCUT FURTHER, NO BRICK WILL BE PERMITTED TO BE CUT, FOR REPLACEMENT, TO A LENGTH LESS THAN ONE-HALF ITS ORIGINAL LENGTH. THIS MAY REQUIRE SAWCUTTING OF ADJACENT UNDISTURBED BRICKS.
8. THE PERIMETER FACES OF THE EXISTING BASE MATERIAL SHALL BE CUT BACK TO AS NEARLY VERTICAL ORIENTATION AS POSSIBLE. IF SHEARING OF THE ADJACENT BASE RESULTS, THE CONTRACTOR SHALL REMOVE ADDITIONAL BRICK AND BASE AS SHOWN IN THE DETAIL.
9. THE MAXIMUM WIDTH OF A BRICK MORTAR JOINT SHALL BE 1/2". THIS RESTRICTION WILL ALSO APPLY TO THE PERIMETER OF A REPAIR AREA, WHERE THE JOINTS MAY NOT BE PARALLEL TO ONE ANOTHER.
10. MORTARING OF JOINTS: ALL JOINTS SHALL BE MORTARED WITH A 30/70 MIXTURE BY VOLUME OF SAND/CEMENT, TO PROVIDE FOR A FLUSH FINISH. THIS MAY REQUIRE MORE THAN ONE APPLICATION. FURTHER MECHANICAL VIBRATION WILL BE REQUIRED FOR COMPACTION.
11. ALL BACKFILL MATERIALS USED UNDER ANY PAVEMENTS SHALL BE CLEVELAND LEM PLACED FROM THE INITIAL ONE FOOT OVER THE TOP OF UTILITIES, TO THE SUBGRADE.
12. TO PREVENT FLOTATION AND ENTRY OF FLOWABLE FILL INTO ANY OTHER AREAS COVER ALL JOINTS IN CLAY PIPE IN THE TRENCH AREA WITH POLYETHYLENE MATERIAL BEFORE FURNISHING FLOWABLE FILL. REPAIR TECHNIQUES SHALL BE IN ACCORDANCE WITH THE UTILITY COMPANY'S STANDARD REPAIR PROCEDURES.

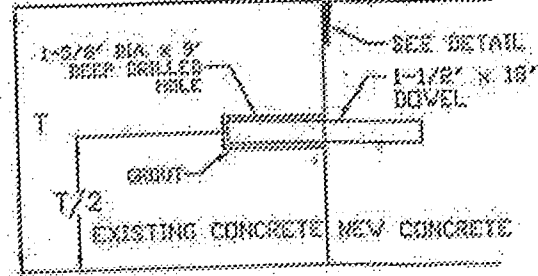
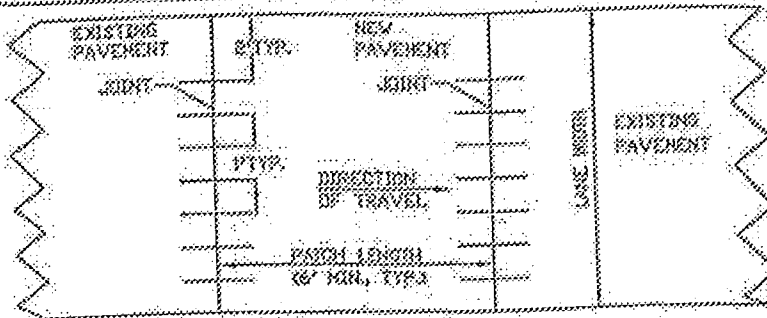
REVISED 8/2/02

CITY OF CLEVELAND
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JONASIE WASKO - DIRECTOR OF PUBLIC SERVICE
STREET OPENING REPAIR - SUPPLEMENTAL
NOT TO SCALE

DRAWN BY: E. BLUDZINSKI DATE: 4/18/02
SUBMITTED BY: M. CLAUGHLIN DATE: 4/24/02

APPROVED: *[Signature]* DATE: *[Signature]*
COMMISSIONER OF ENGINEERING AND CONSTRUCTION

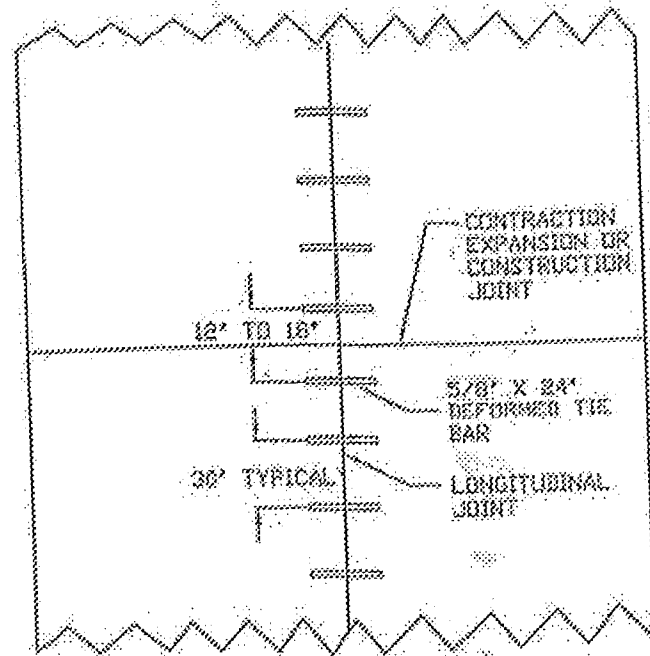
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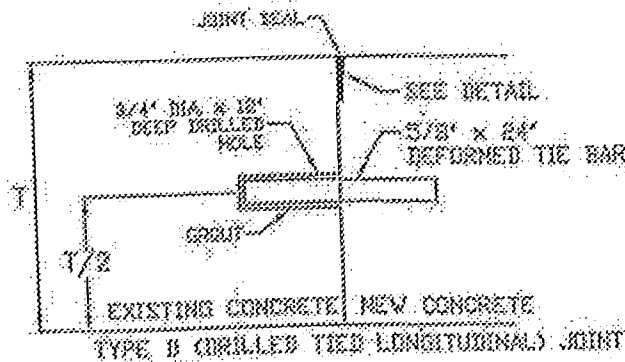
SECTION THROUGH TRANSVERSE JOINT

NOTES:

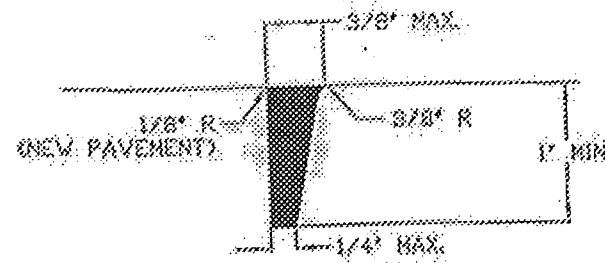
1. ALL JOINTS SHALL BE CONSTRUCTED NORMAL TO THE CENTERLINE OF THE PAVEMENT LANE.
2. ALL DOVEL HOLES SHALL BE DRILLED BY A MECHANICAL DEVICE THAT WILL ALLOW INDEPENDENT ADJUSTMENT OF ALL DRILL SHAFTS IN THE HORIZONTAL AND VERTICAL DIRECTION. THE DEVICE SHALL BE CAPABLE OF DRILLING A MINIMUM OF THREE HOLES AT ONE TIME.
3. ALL SMOOTH DOVELS SHALL BE COATED WITH A THIN LAYER OF OIL OR OTHER 'BOND-BREAKING' MATERIAL AFTER THEY HAVE BEEN INSTALLED IN THE EXISTING PAVEMENT AND JUST PRIOR TO PLACING THE PATCH. ALL DOVELS SHALL BE PLACED PARALLEL TO THE PAVEMENT SURFACE AND THE CENTERLINE OF THE PAVEMENT LANE.
4. ADDITIONAL PAVEMENT REMOVAL: IF AFTER THE REMOVAL OF THE PAVEMENT FROM THE AREA TO BE REPAIRED, THE FACE OF THE REMAINING PAVEMENT IS SPALLED OR DETERIORATED FOR A HEIGHT GREATER THAN ONE-FOURTH (1/4) THE THICKNESS OF THE RIGID PAVEMENT, ADDITIONAL REMOVAL SHALL BE MADE AS SHOWN.
5. LONGITUDINAL JOINTS FOR PATCHES 10 FEET OR GREATER IN LENGTH THE LONGITUDINAL JOINT SHALL BE CONSTRUCTED AS PER STANDARD DRAWING. SPACING OF THE TIE BARS SHALL BE NO MORE THAN 30' NOR LESS THAN 24'.
6. TYPE B (DRILLED TIE) LONGITUDINAL JOINT: TYPE B JOINTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH TEST SPEC. 8808. GROUP SHALL MEET THE REQUIREMENTS OF TEST SPEC. 8808. THE USE OF 3/8" EXPANSION ANCHORS, FF-3-303, GROUP VIII, TYPE I OR GROUP II, TYPE 4, CLASS I MAY BE USED IN LIEU OF THE 5/8" X 24" DEFORMED TIE BAR AND SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. THE USE OF SELF DRILLING EXPANSION SHIELD ANCHORS, FF-3-303, GROUP III, TYPE I (A) AND (B) SHALL NOT BE PERMITTED.
7. SEALING JOINTS: SAVED OR HAND FORMED JOINTS SHALL BE SEALED WITH DOST 70344 JOINT SEALER.



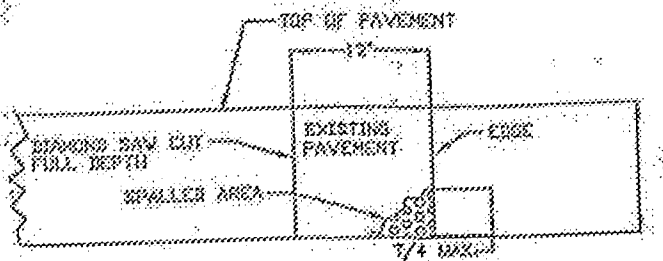
TIE BAR SPACING



TYPE B (DRILLED TIE) LONGITUDINAL JOINT



GROOVE & SEAL DETAIL



ADDITIONAL PAVEMENT REMOVAL

REVISED 8/1/08

CITY OF CLEVELAND
DEPARTMENT OF PUBLIC SERVICE
DIVISION OF ENGINEERING & CONSTRUCTION
JOSIAH WASH - DIRECTOR OF PUBLIC SERVICE
STREET OPENING REPAIR
NOT TO SCALE

DRAWN BY: S. BLOZINSKI DATE: 1/9/08
SUBMITTED BY: W. McLAUGHLIN DATE: 1/8/08

APPROVED: *[Signature]* DATE: *[Signature]*
COMMISSIONER OF ENGINEERING AND CONSTRUCTION

FILE NO. PR 1 | SHEET 2/2



Utilities Construction Co.
645 South Green Road
South Euclid, Ohio 44121
Office: (216) 381-8100 Fax: (216) 381-5422
Email: Utilities@ohio.net

Job Description
& Location:

XO COMMUNICATIONS -
ONTARIO STREET & CARNEGIE STREET INTERSECTION

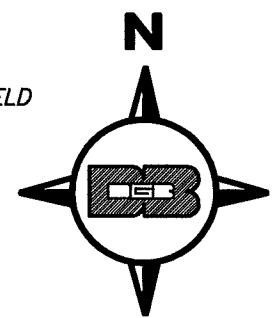
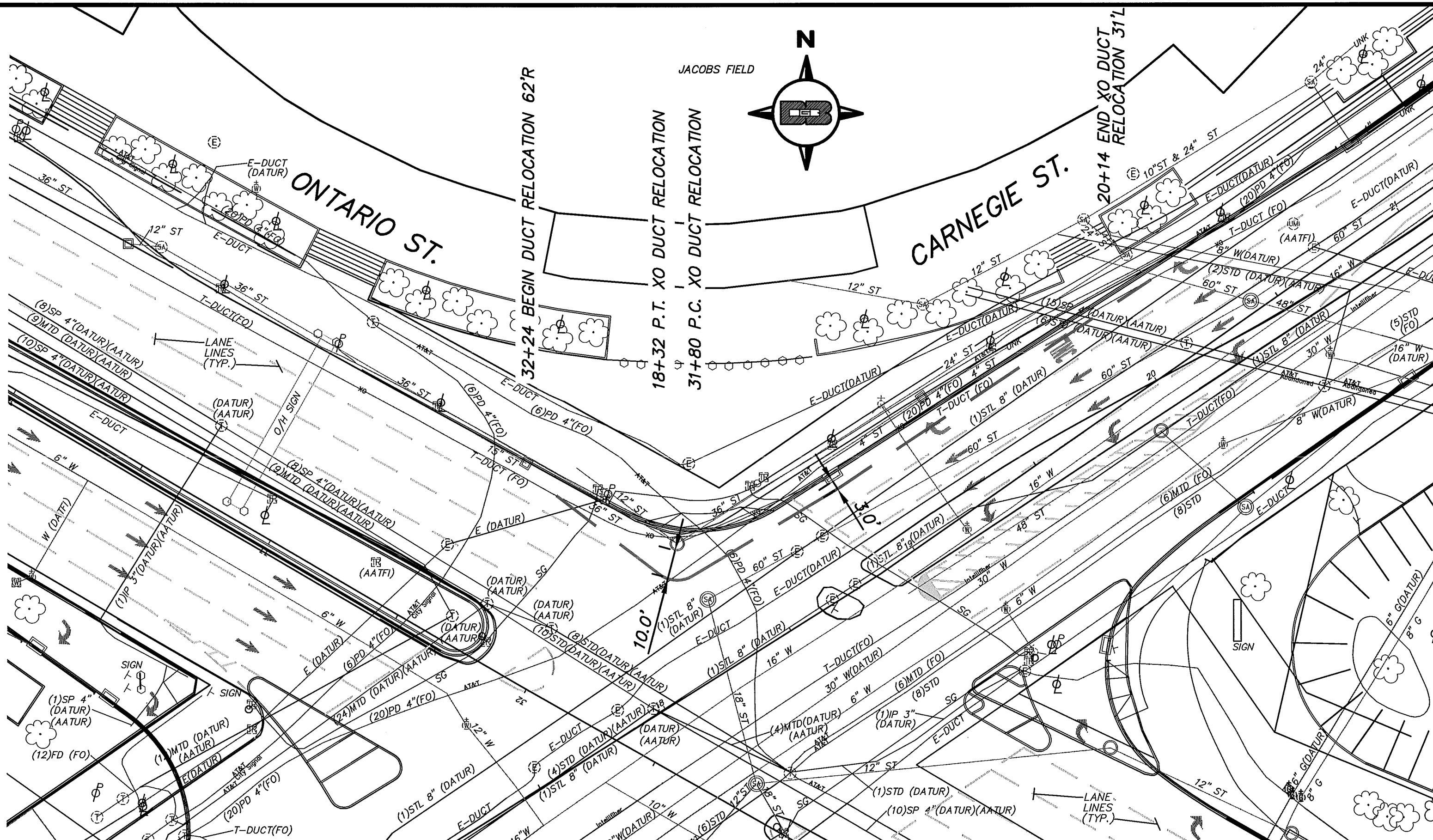
DONALD G. BOHNING & ASSOCIATES, INC.
CIVIL ENGINEERING & SURVEYING
7979 HUB PARKWAY • VALLEY VIEW, OHIO 44125
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Page: 10 of 11




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