

**SUPPLEMENTAL SPECIFICATIONS**

- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL CHARGES RELATING TO THE REQUIRED PERMITS AND SHALL CONFORM TO THE RESPECTIVE PERMIT REQUIREMENTS. PERMITS MAY BE REQUIRED FROM (BUT NOT LIMITED TO) NEW HAVEN VILLAGE, MCOPWC, MCDR, MDOOT, MDEQ.
- DETERMINING THE EXISTENCE AND LOCATIONS OF UNDERGROUND AND OVERHEAD UTILITIES AND THEIR PROTECTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE EXACT LOCATION AND DEPTH OF EXISTING UNDERGROUND UTILITIES ARE UNKNOWN. THE CONTRACTOR SHALL VERIFY THEIR LOCATION AND DEPTH PRIOR TO CONSTRUCTION AND SHALL MAINTAIN A MINIMUM 18" VERTICAL CLEARANCE.
- THE CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES AND TAKE ALL NECESSARY PRECAUTIONS FOR THE PROTECTION OF WORK AND SAFETY OF THE PUBLIC. ALL BARRICADES AND OBSTRUCTIONS SHALL BE PROTECTED AT NIGHT BY SIGNAL LIGHTS WHICH SHALL BE KEPT LIGHTED FROM SUNSET TO SUNRISE. TRAFFIC CONTROL DEVICES SHALL BE IN CONFORMANCE WITH THE CURRENT ISSUE OF THE MICHIGAN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL MAINTAIN ACCESS TO PROPERTIES AFFECTED BY THE CONSTRUCTION.
- THE CONTRACTOR SHALL FIELD VERIFY SITES, LOCATIONS, ELEVATIONS, AND DETAILS OF ALL EXISTING CONSTRUCTION AND CONDITIONS THAT MAY AFFECT THE WORK BEFORE PROCEEDING WITH THIS PROJECT. THE CONTRACTOR SHALL INFORM THE ENGINEER OF ANY DISCREPANCIES IN DIMENSIONS, SIZES, LOCATIONS AND CONDITIONS BEFORE PROCEEDING WITH THE WORK.
- MAIL BOXES, FIRE HYDRANTS, WATER SUPPLY VALVES, GAS VALVES AND OTHER APPURTENANCES ON OR ADJACENT TO THE WORK SHALL BE ACCESSIBLE AT ALL TIMES. TEMPORARY PROVISIONS SHALL BE MADE BY THE CONTRACTOR TO INSURE THE USE OF MAIL BOXES, SIDEWALKS AND THE PROPER FUNCTIONING OF ALL SEWERS, SEPTIC FIELDS, SEWER INLETS, GUTTERS, DRAINAGE DITCHES, SUMP PUMP DRAINS, UTILITIES, SERVICES AND FACILITIES. ANY EXISTING LANDSCAPING FEATURES AND FACILITIES WHICH ARE DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO AN EQUAL OR BETTER CONDITION, AND IN ACCORDANCE WITH ANY EASEMENT CONDITIONS WHICH MAY EXIST. TURF SHALL BE ESTABLISHED IN ALL NON-GRAVEL AND UNPAVED AREAS. THE CONTRACTOR SHALL VERIFY AND RECORD THE LOCATIONS AND ELEVATIONS AND DETAILS OF EXISTING FEATURES AND FACILITIES TO BE RESTORED PRIOR TO THEIR REMOVAL IN ORDER TO RESTORE THEM PROPERLY.
- ALL EXCAVATION UNDER OR WITHIN 3' OF EXISTING OR PROPOSED PUBLIC PAVEMENT SHALL BE BACKFILLED WITH COMPACTED MDOOT CLASS II SAND BACKFILL OR BETTER.
- THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING AND OTHER MEANS REQUIRED TO PROTECT AND MAINTAIN THE SAFETY, INTEGRITY AND STABILITY OF ALL EXISTING AND NEW CONSTRUCTION THAT MAY BE AFFECTED BY THE WORK. THE SIDES OF EXCAVATIONS SHOULD BE ADEQUATELY SLOPED OR STRUCTURALLY SUPPORTED. MIOSHA REQUIREMENTS MUST BE FOLLOWED DURING CONSTRUCTION. CONSTRUCTION TRAFFIC, STOCKPILED SOILS AND CONSTRUCTION MATERIALS SHALL BE STORED IN A MANNER THAT WILL NOT ENDANGER THE BANK OF THE TRENCH BY IMPOSING TOO GREAT A LOAD THEREON. WHEN BORING SANITARY SEWERS UNDER EXISTING ROADS PITS SHOULD BE LOCATED A MINIMUM OF 10' FROM THE ROAD BUT NO CLOSER THAN AS REQUIRED BY THE AGENCY HAVING JURISDICTION OVER THE ROW.
- THE CONTRACTOR SHALL PROVIDE APPROPRIATE POSITIVE GROUND WATER CONTROL MEASURES BEFORE EXCAVATION. THE DEWATERING SYSTEM SHOULD HAVE PROPERLY DESIGNED FILTER MEDIA AROUND THE WELL SCREENS IN ORDER TO PREVENT SUBSOILS FROM BEING PUMPED OUT OF THE SUBSURFACE. THE CONTRACTOR SHALL MONITOR THE DISCHARGE WATER FROM THE DEWATERING SYSTEM TO VERIFY THAT THIS CONDITION DOES NOT DEVELOP. APPROPRIATE DEWATERING AND TUNNELING TECHNIQUES WILL BE REQUIRED FOR BORING AND JACKING OPERATIONS TO MINIMIZE SETTLEMENT OF THE OVERLYING GROUND SURFACE.
- THE CONTRACTOR SHOULD ESTABLISH AND MONITOR A BENCH MARK ABOVE THE PIPE CENTERLINE DURING PIPE INSTALLATION TO EVALUATE POSSIBLE GROUND LOSS OR SURFACE ELEVATION CHANGES DURING PIPE INSTALLATION.
- IF ORGANIC SOILS (PEAT OR MARL) ARE ENCOUNTERED AT THE BOTTOM OF TRENCH THEY MUST BE REMOVED ENTIRELY AND REPLACED WITH ENGINEERED FILL CONSISTING OF CLEAN WELL GRADED GRANULAR FILL MATERIALS.
- ALL SOIL EROSION AND SEDIMENTATION MUST BE CONTROLLED WITHIN THE WORK AREA.
- PARCEL LINES HAVE BEEN APPROXIMATELY LOCATED ON THE PLANS. PARCEL LINES MAY NOT REFLECT PRECISE ALIGNMENT AND MAY BE MODIFIED DUE TO RECENT PARCEL SPLITS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PRESERVING ALL EXISTING PUBLIC LAND SURVEY CORNERS AND PROPERTY CONTROLLING CORNERS. ALL WORK NECESSARY TO MAINTAIN THE CORNERS SHALL BE DONE BY A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF MICHIGAN. THE CONTRACTOR SHALL ARRANGE TO HAVE THE AFFECTED CORNERS WITNESSED PRIOR TO THE START OF CONSTRUCTION. THEY SHALL BE WITNESSED AND REMONUMENTED ACCORDING TO PUBLIC ACT 74 OF 1970 AS AMENDED. UPON COMPLETION OF THE REQUIREMENTS OF ACT 74, THE LICENSED SURVEYOR SHALL PREPARE AND RECORD A LAND RECORDATION CERTIFICATE WITH THE REGISTER OF DEEDS.
- CONTRACTOR SHALL PREPARE AND SUBMIT RECORD DRAWINGS OF THE CONSTRUCTED WORK TO THE NEW HAVEN VILLAGE WATER AND SEWER DEPARTMENT FOR APPROVAL. OTHERWISE, THE CONTRACTOR SHALL DEPOSIT THE APPROPRIATE FEE (DETERMINED BY THE VILLAGE ENGINEER) WITH NEW HAVEN VILLAGE FOR THE ENGINEER TO PREPARE THE RECORD DRAWINGS.
- CONTRACTOR SHALL MAINTAIN DITCH TO ALLOW DRAINAGE WATER FLOW AT ALL TIMES.
- ANY DAMAGE TO DRAIN TILES MUST BE REPAIRED IMMEDIATELY.
- CONTRACTOR SHALL RESTORE ROAD DRAINAGE DITCH TO EXISTING ELEVATIONS W/ 2:1 SIDE SLOPES UNLESS OTHERWISE INDICATED. DITCH RESTORATION SHALL BE INCIDENTAL TO THE WATERMAIN INSTALLATION.

**VILLAGE OF NEW HAVEN STANDARD NOTES**

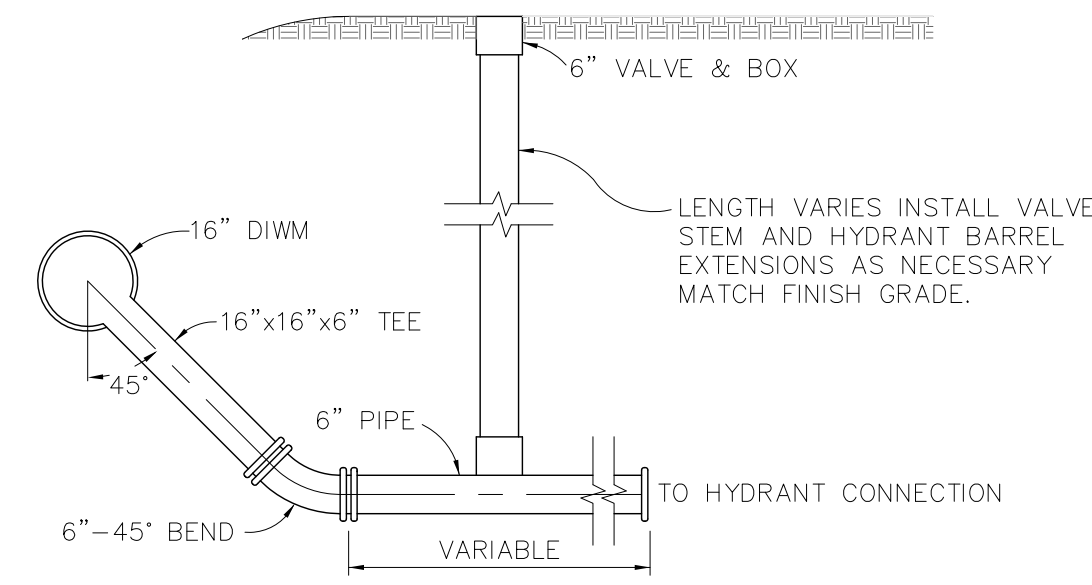
- NOTIFY THE VILLAGE OF NEW HAVEN BUILDING DEPARTMENT (586-749-5301) A MINIMUM OF 48-HOURS PRIOR TO THE START OF CONSTRUCTION.
- CONTACT THE OFFICE OF THE MACOMB COUNTY PUBLIC WORKS COMMISSIONER AT (586-469-5325) 48-HOURS BEFORE CONSTRUCTION.
- CALL MISS DIG (1-800-482-7171) A MINIMUM OF 72-HOURS PRIOR TO THE START OF CONSTRUCTION.
- ALL CONSTRUCTION MUST CONFORM TO THE CURRENT STANDARDS AND SPECIFICATIONS ADOPTED BY VILLAGE OF NEW HAVEN.
- ALL SOIL EROSION AND SILT MUST BE CONTROLLED AND CONTAINED ONSITE.
- ALL EXCAVATION UNDER OR WITHIN 3- FEET OF PUBLIC PAVEMENT, EXISTING OR PROPOSED, SHALL BE BACKFILLED AND COMPACTED WITH SAND (CLASS II MDOOT -MINIMUM).
- THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGE TO EXISTING UTILITIES.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL VILLAGE OF NEW HAVEN PERMITS INCLUDING A PERMIT TO OCCUPY PUBLIC UTILITY EASEMENTS AND PUBLIC RIGHTS-OF-WAY.
- TRENCH BACKFILL IN COUNTY RIGHTS-OF-WAY SHALL CONFORM TO MACOMB COUNTY DEPARTMENT OF ROADS REQUIREMENTS AND BE SUBJECT TO THE APPROVAL OF THE SAME.
- ALL WATER / SANITARY / STORM TAPS SHALL BE PERFORMED BY A PRE-QUALIFIED CONTRACTOR APPROVED BY THE VILLAGE.
- OPEN-CUT STREET CROSSINGS ARE NOT ALLOWED WITHOUT PRIOR APPROVAL BY THE VILLAGE. ALL DAMAGED PAVEMENT SHALL BE RESTORED TO ORIGINAL OR BETTER CONDITION.
- THE DEVELOPER SHALL BE RESPONSIBLE FOR PROVIDING POSITIVE DRAINAGE TO STORM WATER OUTLETS ON SITE TO ELIMINATE STANDING WATER IN VACANT AREAS DURING CONSTRUCTION OF THE DEVELOPMENT.
- IF ANY DISCREPANCY BETWEEN THESE PLANS AND THE JURISDICTIONAL AGENCY STANDARDS OCCURS, THE AGENCY STANDARDS SHALL GOVERN.

**STANDARD SPECIFICATIONS**

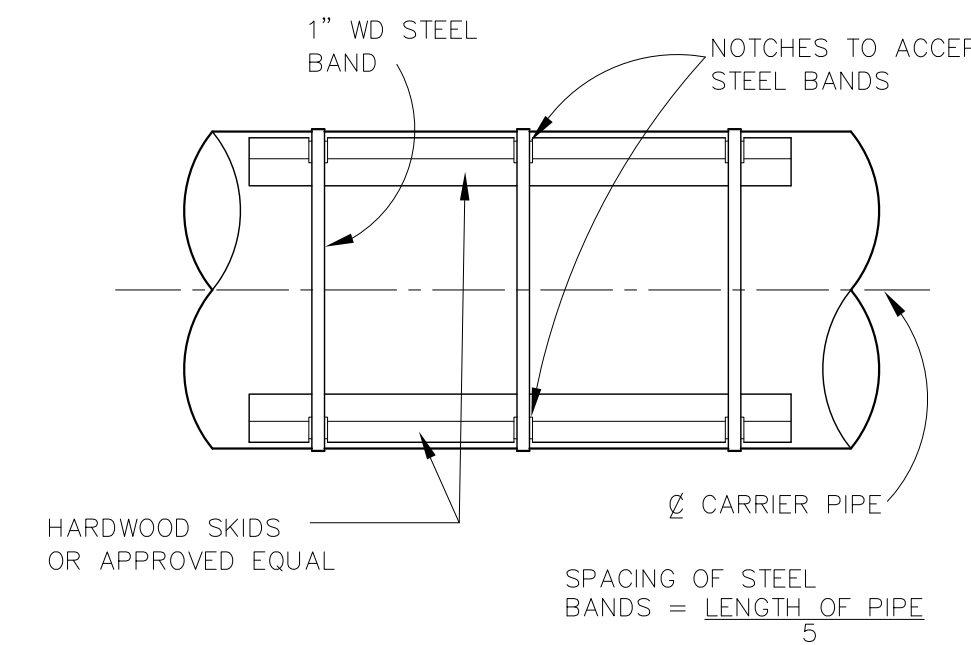
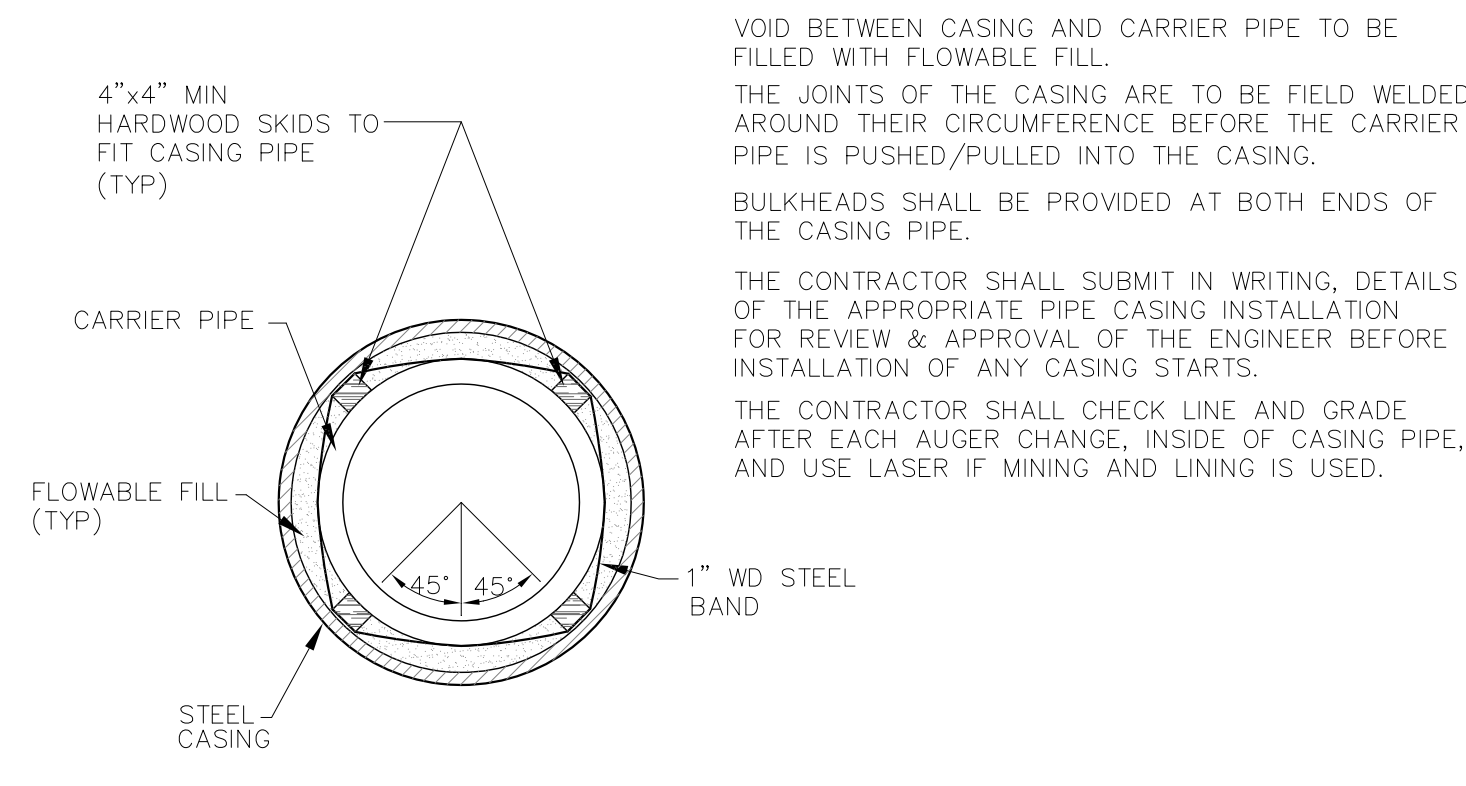
ALL WORK SHALL BE IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF NEW HAVEN VILLAGE, MACOMB COUNTY DEPARTMENT OF ROADS, MICHIGAN DEPARTMENT OF TRANSPORTATION AND THE MACOMB COUNTY OFFICE OF PUBLIC WORKS COMMISSIONER, AS APPLICABLE.

NEW HAVEN VILLAGE STANDARD SPECIFICATIONS ARE AVAILABLE FROM THE OFFICE OF THE ENGINEER, TRI-COUNTY ENGINEERING CONSULTANTS (810) 394-7887, WHICH INCLUDE THE APPLICABLE SECTIONS OF THE FOLLOWING:

- DIVISION 1 GENERAL REQUIREMENTS
- DIVISION 2 EXISTING CONDITIONS
- DIVISION 3 CONCRETE
- DIVISION 22 UTILITIES WATER SANITARY
- DIVISION 31 EARTHWORK
- DIVISION 32 SITE WORK



**HYDRANT DETAIL TO BLOW-OFF SEDIMENT**  
(NTS)



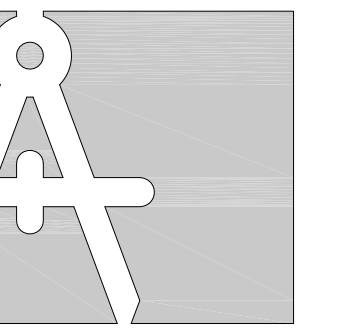
RCP UNDER HIGHWAY OR STREETS SHALL BE ASTM DESIGNATION C76, CLASS 4.  
RCP UNDER RAILROADS SHALL BE ASTM DESIGNATION C76, CLASS 5.

STEEL CASING PIPE SHALL BE UNCOATED PIPE MEETING THE REQUIREMENTS OF EITHER ASTM A53, (TYPE E OR S, GRADE B) OR ASTM A139 (GRADE B) AND SHALL CONFORM TO THE FOLLOWING TABLE:

NOMINAL SIZE OF CASING PIPE (INCHES)	MIN. WALL THICKNESS UNDER HIGHWAY OR STREET (INCHES)	MIN. WALL THICKNESS UNDER RAILROAD (INCHES)
12	0.250	0.281
18	0.250	0.312
20	0.250	0.344
24	0.250	0.406
30	0.312	0.469
36	0.312	0.531
42	0.531	0.562
48	0.609	0.609
54	0.687	0.687

**CASING DETAILS**  
(NTS)

VOID BETWEEN CASING AND CARRIER PIPE TO BE FILLED WITH FLOWABLE FILL.  
THE JOINTS OF THE CASING ARE TO BE FIELD WELDED AROUND THEIR CIRCUMFERENCE BEFORE THE CARRIER PIPE IS PUSHED/PULLED INTO THE CASING.  
BULKHEADS SHALL BE PROVIDED AT BOTH ENDS OF THE CASING PIPE.  
THE CONTRACTOR SHALL SUBMIT IN WRITING, DETAILS OF THE APPROPRIATE PIPE CASING INSTALLATION FOR REVIEW & APPROVAL OF THE ENGINEER BEFORE INSTALLATION OF ANY CASING STARTS.  
THE CONTRACTOR SHALL CHECK LINE AND GRADE AFTER EACH AUGER CHANGE, INSIDE OF CASING PIPE, AND USE LASER IF MINING AND LINING IS USED.



**TRI-COUNTY**  
Engineering Consultants  
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Shelby Twp, MI 48315  
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FAX: (586) 566-4642  
info@Tri-CountyEng.com  
www.Tri-CountyEng.com



CLIENT NAME:  
**VILLAGE OF NEW HAVEN**  
MACOMB COUNTY

**3 WORKING DAYS**  
800-482-7171



**Know what's below.**  
Call before you dig.  
PRIOR TO CONSTRUCTION, ALL EXISTING UTILITIES, LOCATION AND DEPTH WITHIN THE PROJECT AREA SHALL BE FIELD VERIFIED. CALL MISS DIG SYSTEM 3 WORKING DAYS PRIOR TO CONSTRUCTION.  
UTILITY INFORMATION SHOWN ON THIS DRAWING IS APPROXIMATE AND MAY BE DISCLOSED INFORMATION BY VARIOUS UTILITY COMPANIES, PUBLIC AGENCIES OR OTHER SOURCES AND THIS MAY NOT NECESSARILY REFLECT ACTUAL FIELD LOCATIONS AND NO GUARANTEE IS GIVEN TO COMPLETENESS OR ACCURACY.  
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PROJECT NAME:  
**NEW HAVEN**

**WATER & SANITARY**  
SUPPLEMENTAL DETAILS

PROJECT LOCATION:  
SEC 28/34, T04N, R14E  
VILLAGE OF NEW HAVEN  
MACOMB COUNTY

Drawn By: TCEC  
Checked By: NHDPW  
Approved By: NEW HAVEN

REVISIONS:  
1. 01/12/25



SCALE VERIFICATION:  
0 0.5 1  
BAR IS ONE-INCH  
ADJUST SCALES ACCORDINGLY IF NOT

SCALE:  
NONE

DRAWING NO:  
NH-StdWM-DEV

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